



Population Reports

HIGHLIGHTS

	Page
Maternal deaths can be prevented; injuries, avoided...	4
International meetings urge humane care	7
Planning for emergency care	8
Family planning crucial	12
Program lessons learned	14
GATHER guide aids postabortion family planning counseling ..	18
Switch to local anesthesia and manual vacuum aspiration saves lives, health resources ..	20
Family planning prevents abortions.....	22
What can be done?.....	26

CONTENTS

Women's Lives at Risk	3
Planning Care to Save Women's Lives	7
Complete Care: Providing Family Planning ...	12
Appropriate Care: MVA and Local Anesthesia	20
Prompt Care: Referral and Decentralization	23
Bibliography	28

Included with this issue:

- ★ Chart: Family Planning Following Postabortion Treatment

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Care for Postabortion Complications:

Saving Women's Lives

In developing countries each year more than half a million women die from maternal causes. Nearly all of these deaths could be prevented. Efforts to prevent maternal deaths from one major cause—complications of unsafe abortion—are crucial but inadequate in most of the world. Providing appropriate medical care immediately could save many thousands of women's lives. Offering family planning could prevent many future unintended pregnancies and unsafe abortions.

Unsafe abortions cause 50,000 to 100,000 deaths each year. In some countries complications of unsafe abortion cause the majority of maternal deaths, and in a few they are the leading cause of death for women of reproductive age. The World Health Organization estimates that as many as 20 million abortions each year are unsafe and that 10% to 50% of women who undergo unsafe abortion need medical care for complications. Also, many women need care after spontaneous abortion (miscarriage). In one country, for example, at 86 hospitals an estimated 28,000 women seek care for complications of unsafe or spontaneous abortion each month.

The five main causes of maternal mortality are hemorrhage, obstructed labor, infection, pregnancy-induced hypertension, and complications of unsafe abortion. Many countries are undertaking programs to reduce deaths from the other four

causes, but few provide adequate emergency medical care that would reduce maternal deaths from abortion complications. Even fewer provide family planning services and counseling to women treated for abortion complications.

Improving Care, Providing Family Planning

While abortion complications are a common medical emergency in developing countries, care often is provided in a crisis atmosphere. In contrast, a strategic approach to postabortion care anticipates the need for emergency treatment, plans ahead to meet that need, and provides family planning to prevent repeat abortions. An effective postabortion care plan ensures that women receive care that is **complete, appropriate, and prompt** ("CAP").

- **Complete.** Many women treated for abortion complications want to avoid pregnancy. Yet fewer than one-third of women receiving care for abortion complications have ever used effective contraception. Many want to learn about family planning and prevent pregnancy. Family planning services and counseling can best be provided at the same place that women receive emergency postabortion care. Because postabortion care is often a medical and emotional crisis, empathic counseling that avoids passing judgment on women is especially important to enable them to avoid future unwanted pregnancies—and unsafe abortions.
- **Appropriate.** Most women seeking emergency care are suffering from incomplete abortion, which, if left untreated, can lead to hemorrhage, infection, and death. Uterine evacuation can be done safely and effectively using manual vacuum aspiration (MVA) with local anesthesia. MVA under local anesthesia is safer and usually less expensive than sharp curettage with general anesthesia, the treatment commonly used in many countries. For example, at one Kenyan hospital the cost of postabortion treatment fell by 66% after MVA replaced sharp curettage, mainly because of dramatically reduced hospital stays.
- **Prompt.** Often, women do not receive medical treatment soon enough. Delays put their lives at risk. Decentralizing emergency care reduces delays by offering some degree of postabortion care at every level of the health system. At the same time, establishing a formal referral system helps each woman quickly reach the level of care that she needs.

A planned postabortion care strategy provides more effective care—and often at a savings—than the crisis atmosphere that currently characterizes most postabortion care. It also meets women's needs for sympathetic care and continuing reproductive health services. Together, effective emergency medical treatment for abortion complications and sensitive family planning counseling and services can save women's lives.

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Population Information Program Center for Communication Programs The Johns Hopkins School of Hygiene and Public Health

Phyllis Tilton Piotrow, Ph.D., Director, **Center for Communication Programs** and Principal Investigator, **Population Information Program**

Ward Rinehart, Project Director, **Population Information Program**

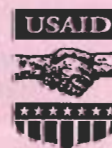
Anne W. Compton, Deputy Director, **Population Information Program**, and Chief, **POPLINE** computerized bibliographic services

Hugh M. Rigby, Associate Director, **Population Information Program**, and Chief, **Media/Materials Clearinghouse**

Jose G. Rimon II, Deputy Director, **Center for Communication Programs**, and Project Director, **Population Communication Services**, developing family planning communication strategies, projects, training, and materials

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Women's Lives At Risk

In developing countries each year an estimated 585,000 women die from complications of pregnancy, childbirth, and unsafe abortion—about one every minute (295). Nearly all of these deaths could be prevented (148, 209, 289).

Pregnancy-related complications cause one-quarter to one-half of deaths among women of reproductive age in developing countries compared with less than 1% in the US. In some developing countries pregnancy-related complications are the leading cause of death for reproductive-age women (76, 233, 285). On average, in developing countries a pregnancy is 18 times more likely to end in the woman's death than in developed countries (295). Also, many thousands of women in developing countries suffer serious illnesses and disabilities, including chronic pelvic pain, pelvic inflammatory disease, incontinence, and infertility, caused by pregnancy or its complications (96, 166).

The risk associated with each pregnancy and delivery is far higher for women in developing countries because good health care is far less available than in developed countries. Moreover, women in developing countries generally bear more children and thus face the risk of maternal death or illness more often. In some developing regions a woman's risk of dying due to maternal causes over the course of her life is as much as 300 times greater than the risk faced by the average woman in a developed country (285, 295). For example, a woman in Eastern Africa faces the highest risk of maternal death—1 in 12—compared with only 1 in 3,700 for a woman in North America (see Table 1). No other health indicator varies so dramatically between developed and developing countries (171, 229, 233, 295).

As well as a tragedy for women themselves, maternal mortality and morbidity take a toll on families and communities (55, 111, 186, 245, 258, 285). Women who die during their childbearing years usually leave at least two children (96, 157). Also, mothers in nearly all developing societies devote 12 to 15 hours of daily labor to meeting household needs for food, water, and fuel as well as caring for children. Thus, when mothers die, families lose their primary caregiver and often a family wage earner as well. Where mothers are heads of household, as is often the case in cities worldwide and in parts of rural Africa, a mother's death means the loss of the primary wage earner (58).

Toward Safe Motherhood

While still considered "a neglected tragedy" in many countries (230), maternal mortality has become a focus of international action in the past decade. In 1987 the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the World Bank, the International Planned Parenthood Federation (IPPF), the Population Council, and agencies from 37 countries launched the Safe Motherhood Initiative. This campaign aims to cut maternal mortality in half by the year 2000. More recently, statements from the International Conference on Population and Development (ICPD), held in Cairo in 1994, and the Fourth World Conference on Women, held in Beijing in 1995, have reaffirmed the global importance of addressing women's health issues, including maternal mortality and morbidity. Today, more and more developing countries are recognizing the need to take action (96, 164, 171, 230, 235, 245, 258, 289).

While debate continues about the best strategies to adopt, under the Safe Motherhood Initiative a variety of programs have been developed to reduce maternal mortality and morbidity (159, 164, 174, 181). Some programs emphasize prenatal care to identify women at high risk of pregnancy complications. Others emphasize training for traditional

birth attendants, who in some countries assist with most births. Still others emphasize establishing or upgrading obstetric care to manage complications when they arise (96, 235). Family planning programs also have contributed to the Safe Motherhood Initiative.

Table 1

Mothers' Lives at Risk

Maternal Deaths, Maternal Mortality Ratio, and Lifetime Risk of Maternal Death, by Region

Region	Annual Number of Maternal Deaths	Maternal Mortality Ratio ¹	Lifetime Risk of Maternal Death—One in:
WORLD	585,000	430	60
DEVELOPED COUNTRIES ²	4,000	27	1,800
DEVELOPING COUNTRIES	582,000	480	48
AFRICA	235,000	870	16
<i>Eastern Africa</i>	97,000	1,060	12
<i>Middle Africa</i>	31,000	950	14
<i>Northern Africa</i>	16,000	340	55
<i>Southern Africa</i>	3,600	260	75
<i>Western Africa</i>	87,000	1,020	12
ASIA ²	323,000	390	65
<i>Eastern Asia</i>	24,000	95	410
<i>South-Central Asia</i>	227,000	560	35
<i>Southeastern Asia</i>	56,000	440	55
<i>Western Asia</i>	16,000	320	55
EUROPE	3,200	36	1,400
<i>Eastern Europe</i>	2,500	62	730
LATIN AMERICA & CARRIBBEAN	23,000	190	130
<i>Central America</i>	4,700	140	170
<i>South America</i>	15,000	200	140
NORTH AMERICA	500	11	3,700
OCEANIA ²	1,400	680	26

¹ Maternal Mortality Ratio (MMR) = the total number of maternal deaths for every 100,000 live births. This ratio measures the risk of death a woman faces each time she becomes pregnant.

² Australia, New Zealand, and Japan are excluded from the regional totals but are included in the total for developed countries.

Source: WHO & UNICEF 1996 (295)



John Ribben video: *Caring Complicity*, for UNFPA, Uganda

Preventable Deaths, Avoidable Injuries

The World Health Organization (WHO) defines maternal mortality as the death of a woman during pregnancy or within 42 days after pregnancy, irrespective of the duration or the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management (289). Five direct causes—hemorrhage, sepsis, pregnancy-induced hypertension, obstructed labor, and complications of unsafe abortion—account for more than 80% of maternal deaths (4, 26, 54, 181, 245, 258, 285). Also, although not a direct cause, anemia is a factor in almost all maternal deaths. Anemia is very common among women in developing countries, and as many as 60% of pregnant women in developing countries suffer from nutritional anemia (59, 289). An anemic woman is five times more likely to die of pregnancy-related causes than a woman who is not anemic (269). Anemia, typically the result of iron deficiency, malaria, or other parasitic diseases, contributes to maternal mortality by making women less able to survive hemorrhage and other complications of pregnancy and delivery (147).

Hemorrhage. The leading cause of maternal death, hemorrhage can kill a woman within just a few minutes. During pregnancy or after delivery, hemorrhage can result from prolonged labor, uterine rupture, or early separation of the placenta from the uterine wall. Hemorrhage also can occur after miscarriage or unsafely induced abortion.

Sepsis. Infection can develop after delivery, miscarriage, or unsafe abortion, when tissue remains in the uterus, when unclean instruments or other objects are placed in the vagina, or

when aseptic procedures are not followed. Septic abortion, when the endometrial cavity or its contents become infected, often follows incomplete abortion, spontaneous or induced.

Pregnancy-induced hypertension. This condition can be one of the most difficult of obstetric emergencies to prevent and to manage. The early stage of this disorder is characterized by high blood pressure, fluid retention (edema), and protein in the urine. Eclampsia can occur during pregnancy or after delivery and can result in convulsions, heart or kidney failure, cerebral hemorrhage, and death (52, 53).

Obstructed labor. This condition occurs when the infant's head cannot pass through the woman's pelvic opening. Obstructed labor can result from malpresentation of the infant or may be due to a woman's physical immaturity, stunted growth, pelvic distortion resulting from disease or malnutrition, or abnormalities of the cervix or vagina, sometimes resulting from female genital mutilation (260). Unless cesarean section can be performed, women struggling with obstructed labor can die from hemorrhage, uterine rupture, infection, or exhaustion. Obstructed labor and the resulting complications are the primary cause of maternal death in sub-Saharan Africa (147, 153, 233).

Complications of unsafe abortion. Common complications include incomplete abortion, infection, hemorrhage, and intra-abdominal injuries, including cervical laceration and uterine perforation (135, 154). All can be fatal if left untreated.

tive by helping women use contraceptives to prevent unintended and high-risk pregnancies and to limit births (73, 164).

In most developing countries, however, one major cause of maternal death and disability remains largely unaddressed. Few countries provide adequate emergency medical care to prevent maternal deaths and illness resulting from the complications of unsafe abortions (74, 274, 282, 292).

The Extent of Unsafe Abortion

Each year an estimated 36 million to 53 million abortions are performed worldwide (94). Of those, as many as 20 million are considered unsafe—that is, they take place outside health care systems, are performed by unskilled providers under unsanitary conditions, or both (292). Most, but not all, unsafe abortions take place in developing countries where abortion is limited by law.

In developing countries complications of unsafe abortion cause between 50,000 and 100,000 women's deaths annually (94, 233, 292). WHO estimates that the proportion of maternal mortality due to abortion complications ranges from 8% in Western Asia to 26% in South America, with a worldwide average of 13% (292). In some settings complications of unsafe abortion cause most maternal deaths, and in a few they may even be the leading cause of death for women of reproductive age (23, 78, 142, 153, 157, 203, 207, 255, 292).

Estimating the worldwide incidence of abortion and abortion-related deaths requires piecing together information from many sources. Where abortion is legal and data collection

systems exist, accurate information is available, while in countries where abortion is legally restricted the only available abortion statistics are estimates. The quality of abortion estimates varies greatly among regions and countries. International efforts are underway to improve the quality of data available on both abortion-related deaths and maternal mortality (301).

Latin America. According to estimates from WHO and others, the highest rate of unsafe abortion is in Latin America, where an estimated 4.6 million unsafe abortions take place each year, or 40 per 1,000 women of reproductive age (292). Unsafe abortion is estimated to cause one-quarter of all maternal deaths in Latin America—6,000 deaths each year (13, 292) (see Table 2). Hospital-based studies in some countries have reported higher fractions (240). For example, between 1985 and 1989 unsafe abortion accounted for nearly one-third of maternal mortality at one Colombian hospital (81). At a Brazilian hospital abortion complications accounted for 47% of maternal deaths between 1978 and 1987 (157).

Asia. With the largest population of any region, Asia has the highest absolute number of unsafe abortions—about 9.2 million each year—although the estimated abortion rate is the lowest in the developing world, at 12 per 1,000 women. Nearly half the world's unsafe abortions take place in Asia, almost one-third in South Asia alone. Unsafe abortion accounts for 12% of all maternal deaths in Asia—40,000 deaths each year (292) (see Table 2).

Sub-Saharan Africa. It is African women, however, who are most likely to die when they undergo unsafe abortion; about

Maternal Morbidity

Women who survive pregnancy complications may suffer ongoing health problems, including chronic pelvic pain, pelvic inflammatory disease, and secondary infertility (96, 154, 166, 292). They also may be at increased risk of ectopic pregnancy (a potentially life-threatening condition in which the fertilized egg implants and develops outside the uterus, usually in a fallopian tube), premature delivery, spontaneous abortion, uterine prolapse, and cervical incompetence from overdistention or injury to the cervix (292).

While little is known about the extent of maternal morbidity in developing countries, estimates have ranged from 16 to 100 episodes of illness or disability for each maternal death (148). Recent evidence suggests that these estimates may be too low. In Bangladesh, for example, for every maternal death, 73 other women experienced life-threatening illnesses related to pregnancy; in Egypt, 56 women. When every episode of pregnancy-related morbidity was counted separately (including minor morbidities and multiple morbidities for the same woman), totals reached 700 maternal illnesses in Bangladesh; over 1,000 in Egypt; and nearly 600 in India for every maternal death (75).

In addition to affecting a woman's physical health, these illnesses also may be detrimental to her social and economic well-being if they affect her ability to work or interact in her community (49, 55, 74, 245, 258, 292). Infertility can be a devastating condition for women emotionally, socially, and economically in countries where women derive their status from bearing children (289).

one of every 150 abortions results in the woman's death (292). An estimated 3.7 million unsafe abortions are performed each year in sub-Saharan Africa, or 26 per 1,000 women, and about 23,000 African women die from complications (292) (see Table 2). Abortion complications account for an estimated 13% of all maternal deaths in Africa (292). In some countries hospital-based studies report much higher percentages. For example, in Ethiopia a hospital-based study estimated that abortion complications accounted for nearly 40% of maternal deaths (297). In Nigeria during the 1980s, at two teaching hospitals abortion complications accounted for 20% (17) and 35% (206) of maternal deaths. At a third hospital 37% of gynecologic deaths were due to abortion complications (8).

Eastern Europe. In Eastern Europe couples have desired small families for decades, yet women have had little access to or confidence in modern contraceptives. By default, abortion has become the primary means of limiting fertility in many Eastern European countries and the Commonwealth of Independent States (CIS) (formerly the Soviet Union) (56, 129, 130). While abortion is legal in these countries, many procedures are performed under unsanitary conditions or by poorly trained providers. Thus complications of unsafe abortion are a major cause of maternal mortality, accounting for 25% to 30% of all maternal deaths in Russia, for example, and an estimated 50% in Albania (56, 136, 213).

Where abortion is legal. In addition to Eastern Europe and the CIS, unsafe abortions also take place in some developing countries where abortion is legal. For example, in India

One of the most serious and most common pregnancy-related morbidities, obstetric fistula, results from obstructed labor. A fistula is an opening between the vagina and the rectum (recto-vaginal fistula) or the vagina and the urethra (vesico-vaginal fistula) that allows feces or urine to leak into the vagina. A woman with a fistula suffers from incontinence, and the resulting odor and uncleanness leave women uncomfortable and often ostracized by their communities. Obstetric fistula can be surgically repaired, although most women in developing countries lack access to such care.

Responding to the Need

Technologies and health management systems commonly available in developed countries can prevent most maternal deaths and illnesses. Furthermore, the appropriate medical responses to pregnancy-related complications usually require no special "high-tech" equipment or training (74, 148, 209, 289). In many developing countries, however, care is not available, or women cannot reach care in time. Thus it is often difficult, if not impossible, to separate the immediate medical cause of a maternal death from the social, economic, and cultural factors that lead up to and influence that medical condition and its management (67, 74, 253). Because maternal mortality is inextricably related to so many societal factors, WHO and the United Nations Children's Fund (UNICEF) describe it as "a litmus test of the status of women, their access to health care and the adequacy of the health care system in responding to their needs," including the availability, accessibility, and acceptability of family planning and maternity care (4, 295).

Table 2. Unsafe Abortion Worldwide
WHO Global and Regional Estimates of
Unsafe Abortions and Related Deaths, 1994

Region	Annual Number of Unsafe Abortions (in Millions)	Annual Number of Deaths from Unsafe Abortion	Risk of Death from Unsafe Abortion
World Total.....	20.00	70,000	1 in 300
Developed Countries.....	2.34	600	1 in 3,700
Europe.....	.26	100	1 in 2,600
Developing Countries.....	17.62	69,000	1 in 250
Africa.....	3.74	23,000	1 in 150
Asia.....	9.24	40,000	1 in 250
Latin America.....	4.62	6,000	1 in 800

Figures may not add to column totals due to rounding.
Source: WHO 1994 (292)

Population Reports

abortion is legal, and yet many women seek abortions outside the formal health system because medical facilities equipped to provide safe abortion are few. Even where services are available in India, problems with confidentiality, quality, and cost deter women from using them. Also, many people are unaware that abortion is legal (47, 94, 123, 212, 280). Of the estimated 5.3 million abortions induced in India in 1989, 4.7 million took place outside approved health care facilities and thus were potentially unsafe (123).



As many as 20 million unsafe abortions take place each year. In developing countries 10% to 50% of women undergoing these abortions need subsequent medical care. Largely because care is lacking or inadequate, many of these women die unnecessarily.

In Turkey, where abortion is legal, it must be performed or supervised by obstetrician-gynecologists, which makes safe abortions inaccessible to most rural women (185). Among Turkish women whose abortions are legal and performed in medical clinics, mortality is 49 deaths per 100,000 procedures, while among women whose abortions take place outside medical clinics, the risk of death is four times as high, at 208 deaths per 100,000 procedures (156).

Also, in Zambia abortion is legal, but many women and service providers are unaware of its legality. Additionally, legal, safe abortion is inaccessible to most women because they must obtain the consent of three physicians (165). Thus, for every woman in Zambia obtaining a legal abortion in 1991, five sought emergency treatment for complications of unsafely induced abortions (41).

Where abortion is restricted. Conversely, even where abortion is restricted by law, safe abortion is usually available to those who can afford it. Throughout Latin America, for example, private clinics offer abortion services; in Brazil some have even advertised in newspapers (94). In Morocco and Iran abortion is generally illegal, but it is reported that women who can pay high fees to medical providers obtain abortions that are safer than those offered by traditional midwives (80, 198). Also, women who can afford to travel go to countries where abortion is legal to obtain safe services.

Complications of Unsafe Abortion

Deaths related to unsafe abortion in developing regions are estimated as high as 100 deaths per 100,000 abortions in Latin America, 400 deaths per 100,000 abortions in Asia, and 600 deaths per 100,000 abortions in Africa (292). In contrast, the aggregate mortality rate from complications of legal abortions in 13 countries, most of them developed, for which accurate data are available is 0.6 deaths per 100,000 abortions (94). The mortality rate is low because in these

countries abortions are performed largely by skilled providers using appropriate equipment under aseptic conditions.

From a range of studies, WHO estimates that 10% to 50% of women undergoing unsafe abortions in developing countries need subsequent medical care (292). Four factors, along with the overall health of the woman, determine the risk that a woman undergoing an abortion will experience medical complications or die from the procedure—(1) the abortion method used, (2) the provider's skill, (3) the length of gestation, and (4) the accessibility and quality of medical facilities to treat complications if they occur (167, 233).

The most common abortion complications are incomplete abortion, sepsis, hemorrhage, and intra-abdominal injury (9, 150, 154, 155, 292). Except for intra-abdominal injury, all complications can result from either spontaneous abortion (miscarriage) or induced abortion. Left untreated, each can lead to death (133, 150, 154). Also, women surviving immediate abortion complications often suffer life-long disability or face elevated risk of complications in future pregnancies (96, 166, 292) (see box, pp. 4–5).

Incomplete abortion. When tissue remains in the uterus after either miscarriage or unsafely induced abortion, the woman suffers "incomplete abortion," the most common abortion complication. Typical symptoms include pelvic pain, cramps or backache, persistent bleeding, and a soft, enlarged uterus (154, 250, 282).

Sepsis. Septic abortion results when the endometrial cavity and its contents become infected (154), usually after contaminated instruments are inserted into the cervix or when tissue remains in the uterus (282). In addition to suffering the general symptoms of incomplete abortion, women with sepsis have fever, chills, and foul-smelling vaginal discharge. Bleeding may be either slight or heavy (154, 250, 282). The first signs of septic abortion usually appear a few days after the miscarriage or unsafe abortion. The infection can quickly spread from the uterus to become generalized abdominal sepsis. High fever, difficulty breathing, and low blood pressure often indicate a more extensive infection (252).

Hemorrhage. Heavy bleeding can occur when incomplete abortion is left untreated. Also, some techniques to induce abortion, such as sharp curettage or inserting sticks or other objects into the cervix can result in intra-abdominal injuries that cause heavy bleeding. Herbs, drugs, or caustic chemicals swallowed or placed into the vagina or cervix can cause toxic reactions and also lead to hemorrhage (154). The risk of postabortion hemorrhage increases with gestational age, as well as with the use of general anesthesia during unsafely induced abortion (48, 285).

Intra-abdominal injury. When instruments are inserted into the cervix to cause abortion, the cervix, the uterus, or other internal organs can be cut or punctured. The most common injury is perforation of the uterine wall. The ovaries, fallopian tubes, bowel, bladder, or rectum also can be damaged (292). Intra-abdominal injury can cause internal hemorrhage with little or no visible vaginal bleeding.

How many women need care? Sepsis and hemorrhage resulting from spontaneous abortion or unsafely induced abortion often are the most common reasons that women in developing countries seek treatment in hospital obstetric and gynecologic wards (155, 231). In Kenya, for example, two hospital-based studies conducted during the 1980s found that women with postabortion complications accounted for

60% of all gynecological admissions (10, 207). In a 7-year study, abortion complications constituted 77% of all emergency gynecological admissions at University College Hospital in Ibadan, Nigeria (150). A recent Egyptian study of 86 public-sector hospitals found that 28,000 women seek postabortion treatment at these facilities each month (62).

Poor women and young women often suffer the most mortality and morbidity from unsafe abortions. Where abortion is restricted, they rarely have access to safe services, and they also are more likely to have unintended pregnancies because they lack access to family planning (60, 94, 210, 211). For example, in Latin America cities, where abortions are increasingly performed by medical providers, poor women are more likely to be hospitalized for abortion complications than wealthy women, who seek safe abortions in private clinics. Poor women are likely to try to induce abortions themselves or go to untrained or poorly skilled providers because they cannot pay doctors' fees (210, 240). In addition to the absence of or distance to medical facilities, cultural factors, such as the inability to travel without a male escort, often limit a woman's access to medical care when complications arise.

Women experiencing spontaneous abortion (miscarriage) need prompt, compassionate medical care. In Egypt, for example, one-third of the women seeking treatment at the 86 public-sector hospitals apparently had experienced miscarriage—they showed no signs of induced abortion and stated that the pregnancy was planned and desired (62). Like women undergoing unsafe abortions, women experiencing miscarriage face unnecessary health risks, permanent disability, or even death where postabortion care is unavailable or ineffective (87, 177, 279).

In addition to causing many deaths and much suffering, abortion complications consume a large portion of health-care budgets and scarce medical resources. In some areas, for example, large amounts of resources such as blood supply are used for treating complications of unsafe abortion (10, 91, 122, 150, 275).

Planning Care To Save Women's Lives

Abortion complications are a common medical emergency in developing countries. Yet, in most, postabortion care is provided in a crisis atmosphere (34, 46). Most developing-country health systems, whatever their national policies toward induced abortion, do not systematically plan for or effectively provide emergency medical care for women suffering from abortion complications (114, 148, 209, 277, 279, 289). As a result, treatment is often delayed and ineffective, with life-threatening and costly consequences.

As researchers Judith Fortney and Karungari Kiragu summarized regarding postabortion care in Africa:

Women may be left without emergency care, either through lack of planning or foresight on the part of health care providers, because the women themselves are afraid to seek care when complications arise because abortion is illegal, or because providers themselves do not place priority on treating these women, even when their condition is critical. Furthermore, the lack of coordination between postabortion care and family planning facilities leaves many women who do survive

International Statements Urge Humane Postabortion Care

International meetings have recently pointed to unsafe abortion as a worldwide public health problem and called on governments and health systems to improve emergency care for women suffering complications of unsafe abortion. Statements from these meetings urge nations to provide humane postabortion medical care and to provide women with family planning services and counseling (111, 263, 264).

Cairo. The United Nations International Conference on Population and Development (ICPD), held in Cairo in 1994, created the first globally recognized document to acknowledge that improving postabortion care is vital to women's health (187). In its much-debated paragraph 8.25, the conference's Program of Action states:

In no case should abortion be promoted as a method of family planning. All governments and relevant intergovernmental and non-governmental organizations are urged to strengthen their commitment to women's health, to deal with the health impact of unsafe abortion as a major public health concern and to reduce the recourse to abortion through expanded and improved family planning services. Prevention of unwanted pregnancies must always be given the highest priority and every attempt should be made to eliminate the need for abortion. Women who have unwanted pregnancies should have ready access to reliable information and compassionate counseling. Any measures or changes related to abortion within the health system can only be determined at the national or local level according to the national legislative process. In circumstances where abortion is not against the law, such abortion should be safe. In all cases women should have access to quality services for the management of complications arising from abortion. Postabortion counseling, education and family planning services should be offered promptly which will also help to avoid repeat abortions. (264)

Mauritius. Also in 1994, representatives from 20 African countries met in Mauritius for the International Planned Parenthood Federation (IPPF) Conference on Unsafe Abortion and Postabortion Family Planning. The resulting Mauritius Declaration called upon participating countries to address the health and social problems that unsafe abortion causes for African women. The declaration called for countries to strengthen family planning information, education, and services; to emphasize male responsibility in family planning and in preventing unwanted pregnancies; to increase availability of high-quality, prompt, humane emergency treatment for women with complications of unsafe abortions, including adolescents; and to ensure the provision of postabortion counseling and family planning services (111).

Beijing. In 1995 the Fourth World Conference on Women, held in Beijing, reaffirmed the importance of providing emergency medical care to women suffering postabortion complications. Paragraph 107(j) of the Beijing Statement urges that governments:

Recognize and deal with the health impact of unsafe abortion as a major public health concern, as agreed in paragraph 8.25 of the Programme of Action of the International Conference on Population and Development. (263)

Recently, statements from major international meetings have recognized unsafe abortion as a global public health concern and called for improved medical care for women suffering abortion complications (see box, p. 7).

The Need to Plan Care

Most abortion-related deaths and disabilities can be prevented with emergency medical procedures that require only basic equipment, skills, and drugs. In most cases when women die or suffer permanent disability, it is because they do not receive medical treatment soon enough. In developing countries many women with abortion complications suffer for days before seeking or receiving care (22, 61, 204, 219, 255). For example, at an Indonesian hospital most women arrived already in critical condition (61). The case of a 35-year-old Bolivian woman is typical. She died of abortion complications within three hours of arriving at a hospi-

tal, but she had been suffering symptoms for 15 days before seeking treatment (22).

Many women or the friends or family members caring for them delay seeking care after unsafe abortion because they are afraid providers will refuse them care and notify the authorities (219). Some delay seeking care because they are unfamiliar with or afraid of the formal health care system. In some cases, they do not recognize how serious the complications are (219, 253). Still others cannot obtain or pay for transportation to a hospital or pay for medical care or supplies. Young women often delay seeking care even longer than their older counterparts because they fear their parents' reaction or because they do not know how to find health care (see box, this page).

Once they reach hospitals or clinics, many women wait for hours, and in some cases, days, before receiving medical attention (2, 46, 128, 134, 177). In Nepal, for example, women admitted to the national maternity hospital with abortion complications once waited one to seven days for treatment (177). Common reasons that care is delayed or

Unsafe Abortion Increasing Among Young Women

Unsafe abortion among young women is an increasing problem in the developing world, particularly in Africa and Latin America (22, 24, 74, 97, 191, 217, 292). Estimates of abortions among women under age 20 in developing countries range from 1 million to 4.4 million a year. Most of these abortions are unsafe, and for some young women, unsafe abortion results in life-long disability, infertility, or death (39, 87, 186, 195, 216, 299). Where abortion is unsafe, it may be one of the greatest health risks that a young woman can face (168).

Women under age 20 often account for more than their share of abortion complication cases reported by developing-country hospitals (34, 97, 145, 216, 222, 256). In Kenya, for example, 53% of septic abortion patients were under age 20 (10). In two Nigerian studies adolescent girls represented 61% and 74% of septic abortion patients (6, 7). Similarly, young and unmarried women often account for more than their share of abortion-related deaths. For example, in a Ugandan study almost 60% of deaths due to unsafe abortion occurred among women under age 20 (266). A Nigerian study found that abortion complications were the most common cause of death among unmarried women ages 15 to 24, particularly those in school (203).

Low contraceptive use. As young women in many developing countries marry later, more are experiencing sex before marriage. While some adolescents become sexually active by choice, others are coerced or forced—either physically or because of economic need—into sex. Few young people, especially the unmarried, use contraception the first time they have sex (182, 194). Studies in a number of countries have found that women delay about one year on average between starting sexual activity and first using modern contraceptives (12, 50, 137). Many pregnancies occur within a year after first sexual intercourse (50, 298), and most are unintended (194). For example, among 200 16-year-olds delivering at Harare Maternity Hospital, Zimbabwe, over one-half

had become pregnant within just three months of starting sexual activity (173). In Mexico City nearly two-thirds of women ages 18 to 19 with premarital sexual experience reported that they had been pregnant at least once (193).

Faced with unintended pregnancy, many young women turn to abortion rather than getting married or bearing the child as a single mother (37). For example, a Nigerian study found that 90% of unmarried and working women with unintended pregnancies had abortions (203). Another Nigerian study, involving 1,800 never-married women ages 14 to 25, found that, of those who had experienced sexual relations, nearly half of students and two-thirds of nonstudents had been pregnant, and nearly all had ended their pregnancies with abortion (201). In some areas of Nigeria and Kenya young people know more about—and have more favorable attitudes toward—abortion than modern contraception (25).

Many young women risk unsafe abortion to avoid leaving school (208). In one Zambian study, for example, 81% of women hospitalized for complications of unsafe abortions were students who did not want mistimed pregnancy to disrupt their education (237). Young women who have given birth rarely return to school, whether they are married or not (84). Some countries routinely expel students who become pregnant; in Kenya alone nearly 10,000 are forced to leave school each year because they are pregnant (70).

Young, unmarried women are more likely than older women to seek abortions from untrained providers and to attempt dangerous, late, and often self-induced abortions, often because of fear, shame, lack of access, or lack of money (37, 66, 97, 108, 216, 284). Furthermore, for the same reasons, young women are more likely to delay seeking medical care for abortion complications (241, 299). For example, Nigerian adolescents said that, if they suffered abortion complications, they would be more likely to run away from home than to tell their parents or go to a health facility (66).

unavailable at clinics or hospitals include lack of protocols, misdiagnosis, punitive attitudes among providers, and heavy case loads and hospital overload due to lack of supplies or trained personnel.

Lack of protocols. Women suffering from abortion complications often are not treated immediately because no clear plan exists for postabortion care (14, 135, 138, 154, 219). Without a clear treatment protocol, providers may not know which treatment is the most appropriate for abortion complications or may lack the needed supplies for appropriate treatment. For example, in many countries providers still use general rather than local anesthesia when treating abortion complications, needlessly increasing the preparation time, equipment, and personnel needed for the procedure as well as the woman's health risk and recovery time (95, 186, 238, 277, 282).

Where no clear postabortion care plan has been developed, providers may not understand their responsibility to treat postabortion complications, especially in settings where abortion is prohibited. Treatment may be delayed because providers fear legal action against them. In Bolivia, for example, some staff mistakenly thought that their hospital's policy required them to refuse to treat women suffering complications of incomplete abortion (219). When a plan for postabortion care is developed, all providers must be made aware of the plan and the treatment protocol to avoid delays.

Misdiagnosis. In some cases appropriate treatment is delayed because providers are not immediately aware that a woman's condition is pregnancy-related. Some women may not acknowledge that they have attempted to induce abortion or may not even acknowledge that they are pregnant (218, 282). Also, providers may not recognize the severity of the woman's complication. In Zambia, for example, an 18-year-old suffering from septic abortion was hospitalized for 14 days with a misdiagnosis of malaria before a gynecologist diagnosed her true condition. Despite surgery and appropriate antibiotic therapy, the woman died 8 days later, 22 days after being hospitalized (46).

Punitive attitudes. Deep differences in attitudes toward induced abortion exist among policy-makers and among health professionals around the world. Some health care providers hold judgmental or punitive attitudes toward women who have had abortions, and their attitudes can affect the care that they give postabortion patients (3, 200, 243, 247). Even in countries where abortion is legal, some providers who disapprove of abortion have difficulty separating their personal feelings about abortion from their professional commitment to provide medical care (140, 244).

Some providers feel a need to punish women by delaying treatment, withholding pain medication, or charging higher fees than the actual cost of treatment (3, 172, 243). Some berate women for attempting abortion, for not using family planning, or for having sex in the first place (200, 218). When resources are scarce and personnel are overworked, some providers may resent caring for women who have undergone unsafe abortion, whom they see as a low priority and as bringing the problem on themselves. As one provider in Kenya described it, "The patients are generally handled as criminals or sinners" (242). Because in many cases it is impossible to differentiate between induced and spontaneous abortion, such attitudes affect the care offered to women suffering miscarriage as well as those whose abortion was induced.

Hospital overload. Heavy emergency case loads, lack of supplies and drugs, and shortage of trained personnel also

can delay treatment (14, 135, 138, 154). In one Ethiopian hospital, where abortion complications accounted for 41% of maternal deaths, severe shortages of medical equipment, drugs, intravenous fluids, and blood for transfusion compromised the standard of care available for treating all pregnancy-related emergencies, including abortion complications (14). Delays may be even more common at smaller, district hospitals. A study in Bangladesh, for example, found that 15% of district hospitals did not provide blood transfusions and that some smaller facilities did not provide even basic obstetric care, despite having doctors on staff (175). In many countries this lack of care often reflects a larger, systemic problem of inadequate care for *all* medical emergencies.

Improving Care, Saving Lives

While each nation determines its own policy on the legal status of induced abortion practices, wherever women resort to unsafe abortion or experience miscarriage they will continue to need medical treatment for complications. Women need not die or suffer permanent injury from abortion complications. Health systems and providers can save many thousands of lives by offering women postabortion care that meets women's immediate medical needs as well as the need to avoid future unintended pregnancies and unsafe abortions.

A postabortion care strategy is a public health approach that focuses on identifying and correcting critical deficits in emergency medical service delivery and management. In a postabortion care approach, health systems treat abortion complications quickly and efficiently and ensure that medical care, family planning, and other reproductive health care are available and accessible to as many women as possible. Postabortion care includes family planning counseling and services offered to all women treated for abortion complications (and their partners, when appropriate) to reduce their risk of future unwanted pregnancies and repeat abortions and refers women to other reproductive health services as needed (87, 277).

Working in stages. The key to an effective postabortion care strategy is starting with whatever improvements in care are most feasible and most appropriate for each particular setting—and starting immediately. The level of medical care



JHU/PCS Video: Put Yourself in Her Shoes

Where abortion is unsafe, it may be one of the greatest health risks a young woman can face. Abortions are especially dangerous for young women because often they delay seeking abortion, they go to untrained providers, or they attempt self-induced abortions.

available and factors that affect women's access to care vary widely throughout developing countries. In many situations a postabortion care strategy will need to be developed and introduced in stages. For example, in some Latin American countries the stigma attached to manual vacuum aspiration (MVA) equipment was so great that many practitioners were not eager to adopt the new technique for postabortion care. In such settings working first to offer family planning services to all postabortion women met with more success (100). In other settings a full-scale program training physicians in MVA, creating an MVA treatment area, and introducing family planning services has been successful (177).

In most developing countries improving postabortion care is an enormous challenge. Improving care requires leadership within the health system, strategic planning, programmatic change, and cooperation among various sectors of the health system. Often, advocates of improved postabortion care will find that they are at only the beginning stage of an overall postabortion care plan.

Ultimately, all postabortion care strategies should make available care that is **complete, appropriate, and prompt**. The word "CAP" can be used as an acronym to help remember the three components of effective postabortion care:

Complete care: Ensuring that *all* women treated for complications of unsafe abortion are offered family planning counseling and services as well as other reproductive health care (see pp. 12–19).

Appropriate care: Adopting manual vacuum aspiration (MVA) and switching to local anesthesia to provide women with better care and to consume fewer resources (see pp. 20–23). Training providers, including nonphysicians where appropriate, to provide postabortion care under local anesthesia.

Prompt care: Avoiding delays by decentralizing postabortion care and setting up a referral system so that women receive care earlier (see pp. 23–28).

A postabortion care strategy is a combined approach that emphasizes both treatment and prevention—*treatment* of the current emergency and *prevention* of future unintended pregnancies, especially among women highly likely to resort to unsafe abortion. Effectively treating abortion complications, providing family planning to prevent future unintended pregnancies and unsafe abortions, and linking women to other reproductive health services can substantially reduce the number of abortion-related deaths—taking a significant step toward the global goal of reducing maternal mortality.

Communicating for change. Information, education, and communication (IEC) programs to identify and publicize the scope of the problem and alert the public and health care providers to potential solutions are a critical part of a postabortion care strategy (282). Health system administrators and policy-makers first need to learn about and acknowledge the magnitude of the problem of unsafe abortion in their countries before they can plan ahead to provide the care women need (186). Thus, advocacy for better postabortion care is often the necessary first step. Public health advocates can speak out about the need to provide postabortion care, citing local statistics on women's deaths and the costs to local hospitals and clinics (184, 187, 282) (see box, p. 26). Community health workers and primary-level providers can develop campaigns informing the public about the dangers of unsafe abortion and the need to seek care immediately when complications develop (87, 184, 187, 282).

Also, mass-media campaigns can alert the public to the problem of unsafe abortion. In Bolivia, for example, the 1994 and 1996 national reproductive health campaigns included radio and television spots about maternal deaths caused by unsafe abortion. According to evaluation findings, people were more likely to recall the spots about unsafe abortion than any of the others in the campaign (234, 267).

When health officials, political and community leaders, and women's organizations speak out about maternal mortality and the dangers of unsafe abortion, they can encourage public discussion and sometimes generate public will to address the problem. For example, Bolivia's vice president and his wife called attention to the need to reduce maternal mortality by appearing together in a television spot for the 1996 national reproductive health campaign (234). Later, when the Bolivian secretary of health sparked controversy by publicly discussing unsafe abortion, the resulting media coverage reached all corners of the country. While no formal programmatic action has yet resulted from this public debate, many people throughout the country became convinced of the need to provide care for women suffering from abortion complications (31).

Within the health system, providers at all levels often need to be educated about the seriousness of abortion complications. Baseline research for an Egyptian project, for example, found that few physicians knew the common long-term health effects of unsafe abortion (214). In many countries providers are unaware of the magnitude of the problem in their area or the large role that abortion complications play in causing maternal deaths. Also, educating providers about the dangers of folk abortion methods is important in some areas. In Nepal, for example, a 5-hospital study found that vaginal preparations and ointments, the most common abortion methods used by traditional birth attendants, were associated with half of the deaths reported (255).

Providers and others in the community invariably have questions about the legality of treating postabortion complications. In Kenya, for example, during a postabortion care workshop, providers asked that training include a session explaining their country's abortion restrictions so that providers would understand clearly the legality of providing postabortion care (243). Advocates can provide clear information, citing international mandates such as the Cairo Program of Action as well as national and local statements that postabortion care is legal and important (145) (see box, p. 7).

Addressing negative attitudes. An important component of every strategy to improve postabortion care is addressing negative attitudes—among the public, among policy-makers, and among health care providers. Effective postabortion care training programs for health care providers encourage them to examine their attitudes about unsafe abortion and the women who suffer its consequences. Providers learn to examine the social problem of unsafe abortion, including its role in maternal deaths. Role-playing exercises can help providers look at individual women's experiences and to empathize with the circumstances that lead them to have unsafe abortions. Empathy means putting oneself in another person's situation and trying to understand that person's feelings and point of view (see box, p. 11). When providers and others learn to empathize, they learn not to assume that they know the woman's circumstances but instead to see each woman as an individual who needs medical care (276).

PUT YOURSELF IN HER SHOES

PAL/VHS

Family Planning Counseling to Prevent Repeat Abortion



Through caring, empathic counseling about family planning, health care providers can make a difference in the lives of women treated for postabortion complications. *Put Yourself in Her Shoes: Family Planning Counseling to Prevent Repeat Abortion* is a 30-minute training video on postabortion counseling that shows how a maternity ward nurse learns to empathize with her postabortion patients and help them begin using family planning.

Filmed in Zambia, the video illustrates the key points of postabortion family planning counseling through the stories of four women hospitalized after unsafe abortion. The photos on pages 6 and 9 come from the video.

The video is intended for emergency care providers, such as gynecologists, obstetricians, other physicians, nurse-midwives, nurses, and medical officers, as well as family planning counselors. The video shows how to make a clear, useful referral for family planning serv-

ices and emphasizes the three essential messages that providers need to convey clearly to women to help prevent future unintended pregnancies and repeat abortions.

The video training package includes a user's guide, a checklist on postabortion family planning counseling, and a prototype brochure for clients. The video was developed and produced by Johns Hopkins Population Communication Services (JHU/PCS) in collaboration with the Program for Appropriate Technology in Health (PATH).

The package is available in English, and a French version is expected in late 1997. Send inquiries to: Manager, Media/Materials Clearinghouse, Johns Hopkins Population Information Program, 111 Market Place, Suite 310, Baltimore, Maryland 21202-4012, USA; fax 410-659-6266; or e-mail mmc@jhu.edu.

Saving lives, resources, and money. Planning and implementing an effective postabortion care strategy, however, does not mean that developing-country health systems must devote a majority of their health resources to postabortion care. Many improvements in postabortion care require only minimal additional expenditures for equipment, facilities, or staff (89, 126, 282). In fact, providing improved postabortion care that is strategically planned for and effectively delivered is likely to consume fewer health resources than the "crisis management" approach currently found in most countries. For example, cost comparisons at four Kenyan sites found that treatment with manual vacuum aspiration on an outpatient basis was 23% to 66% less costly than the standard treatment using sharp curettage and requiring an overnight

stay (126). Comparisons among five Mexican hospitals found that costs were 17% to 72% lower with planned postabortion care that included MVA on an outpatient basis. Savings came from changes in patient management, including treatment on an outpatient basis and use of local anesthesia (126).

Furthermore, the health care improvements needed for an effective postabortion care strategy are the same improvements needed to improve medical care for *all* pregnancy-related emergencies and even many general emergencies. Thus a plan to improve postabortion care can contribute to improvements in other key aspects of medical care and be part of a larger initiative to improve *all* emergency care.

Additional Publications on Postabortion Care and Family Planning

The following publications offer detailed information on treating postabortion complications and providing postabortion family planning counseling and services:

Family Planning Counseling: A Curriculum Prototype. (Trainer's manual and participant's handbook). AVSC International, 1995.

Talking with Clients about Family Planning: A Guide for Health Care Providers. AVSC International, 1995.

Contact:
AVSC International
Material Resource Department
79 Madison Ave.
New York, NY 10016, USA.

Postabortion Care Course Handbook: Guide for Participants. JHPIEGO, 1995.

Postabortion Care Trainer's Notebook. JHPIEGO, 1995.

Contact:
JHPIEGO
Materials Division
1615 Thames St., Suite 200
Baltimore, MD 21231, USA
Fax: 410-614-0586.

Family Planning Following Postabortion Treatment (wall chart). Ipas, 1997.

Manual Vacuum Aspiration Guide for Clinicians. L. Yordy, A.H. Leonard, and J. Winkler. Ipas, 1993.

Meeting Women's Needs for Postabortion Family Planning: Framing the Questions.

J. Benson, A.H. Leonard, J. Winkler, M. Wolf, and K.E. McLaurin. Ipas, 1992. (Issues in Abortion Care 2).

Pain Control for Treatment of Incomplete Abortion with MVA. A. Margolis, A.H. Leonard, and L. Yordy. *Advances in Abortion Care* 3(1): 1-8. Ipas, 1993.

Postabortion Care: A Reference Manual for Improving Quality of Care. J. Winkler, E. Oliveras, and N. McIntosh, editors. Postabortion Care Consortium, 1995.

Postabortion Family Planning: A Curriculum Guide for Improving Counseling and Services. J. Winkler and R. Gringle, editors. Ipas, 1996.

Protocol for Reusing Ipas Manual Vacuum Aspiration Instruments. A.H. Leonard and L. Yordy. *Advances in Abortion Care* 2(1):1-12. Ipas, 1992.

Contact:
Ipas, P.O. Box 999, Carrboro, NC 27510, USA.
Fax: 919-929-0258. Single copies of *Advances in Abortion Care* issues are available free of charge.

Clinical Management of Abortion Complications: A Practical Guide. World Health Organization Maternal Health and Safe Motherhood Programme, 1994.

Complications of Abortion: Technical and Managerial Guidelines for Prevention and Treatment. World Health Organization, 1995.

Postabortion Family Planning: Guidelines for Programme Managers. World Health Organization, [forthcoming].

Contact:
World Health Organization
Publications Center
1211 Geneva 27,
Switzerland
Fax: 41-22-791-0746.

Complete Care: Providing Family Planning

Linking emergency postabortion care with family planning and other reproductive health services is crucial if women are to avoid future unintended pregnancies and unsafe abortions. Few clinics or hospitals, however, offer women family planning counseling and services. Ensuring that family planning counseling and services are offered to all women treated for complications of unsafe abortion usually is one of the most immediate ways to improve postabortion care.

Most women who have risked their health and even their lives undergoing unsafe abortion want to avoid pregnancy (33, 161, 209, 228, 236, 282, 287). When family planning counseling and services are offered to women treated for abortion complications, many begin using a contraceptive method. Family planning counseling, always important, is indispensable for women who have been treated for abortion complications because they often need to address broader issues than choosing a contraceptive method (107).

The Need for Family Planning

Despite their widely varying circumstances, many women treated for complications of unsafe abortion share one characteristic: they were not using contraception before their

abortion. In studies, fewer than one-third of women in Latin America, Asia, and Africa receiving care for complications of unsafe abortion have ever used modern contraceptives (8, 15, 82, 132, 149, 191, 192, 261). Other women were using a contraceptive method that failed for one reason or another.

While few women treated for abortion complications have used family planning before, most want family planning (5, 49, 90, 92, 132, 179, 247). Also, for many women, emergency postabortion care may be one of their few contacts with the formal health system and an opportunity for them to receive family planning and other reproductive health services (87). Particularly for young women, postabortion care that links them to family planning and other reproductive health services can have a profound effect on their future health. Services, however, must always be offered as an option, rather than as a requirement or condition for receiving postabortion emergency care (188, 279, 282).

Missed opportunities. While the postabortion care setting is an important opportunity for offering family planning counseling and services, the opportunity is too often missed (33, 161, 170, 261). Few women in developing countries receive family planning counseling and services after their postabortion emergency care (87, 139, 188, 215, 246). A recent survey in Kenya, for example, found that 91% of providers reported that women treated after unsafe abortions do not routinely receive family planning information in their facilities, even though 86% thought that women should receive family planning information (215). Also, observations in two major Egyptian hospitals in 1994 found that fewer than 3% of women treated for postabortion complications were

counseled about family planning (214). At one Turkish government hospital only 14% of women reported receiving family planning counseling and information, despite the fact that the doctors treating them were trained in family planning counseling and services (43).

Clinicians providing emergency postabortion care often do not see family planning services as part of postabortion care or as their responsibility (87, 200, 276). Often, physicians expect others to provide family planning counseling (246). Some providers mistakenly think that it is enough to tell a woman who has been treated for abortion complications, "You need to go to the family planning clinic when you leave here" (32). Some clinicians who do not routinely provide family planning services know little about family planning methods, are misinformed about contraceptive technology, or follow outdated guidelines about postabortion family planning use (140, 276).

For their part, few family planning programs specifically offer postabortion family planning counseling and services or see women who have had unsafe abortions as part of either their clientele for services or their audience for family planning communication (87, 148). Few family planning programs are linked to emergency care providers through a formal referral network. Also, family planning providers often are not familiar with the common complications of unsafe abortion or with treatment techniques and thus have limited understanding of which family planning methods are appropriate under what circumstances (87, 200).

Avoiding Repeat Abortion

Women who receive no family planning counseling or services after treatment for abortion complications often become pregnant again, and some have another unsafe abortion. In Latin America nearly one-third of women treated for abortion complications had undergone one or more previous abortions, a 4-country analysis of hospital records found (241). In Estonia more women being treated for postabortion complications had undergone a previous abortion (64%) than had ever used contraception (57%) (16). In Nigeria women seeking treatment for postabortion complications were more likely to have had a previous abortion than to have used contraception, according to a 3-year study at a university hospital. Only 5% had ever used contraception, while over twice as many—11%—reported a previous abortion (17).

In contrast, where family planning services are made available to women who have had abortions, the women are likely to use family planning (179, 228). In the US, for example, undergoing an abortion, when followed by adequate family planning counseling and services, increased the likelihood that young women would consistently practice effective contraception in the future, one study found. Before their abortions only 25% of the women consistently used a modern contraceptive method, while one year afterward 77% did so (5).

Linking emergency care and family planning. All hospitals or clinics treating women for complications of unsafe abortion should consider starting a family planning program on-site as part of postabortion care. They can provide postabortion family planning counseling together with as full a range of contraceptive methods as possible. Reversible modern methods, such as condoms, spermicides, injectables, and oral contraceptives, can be offered to women before they are discharged from the medical facility (276).

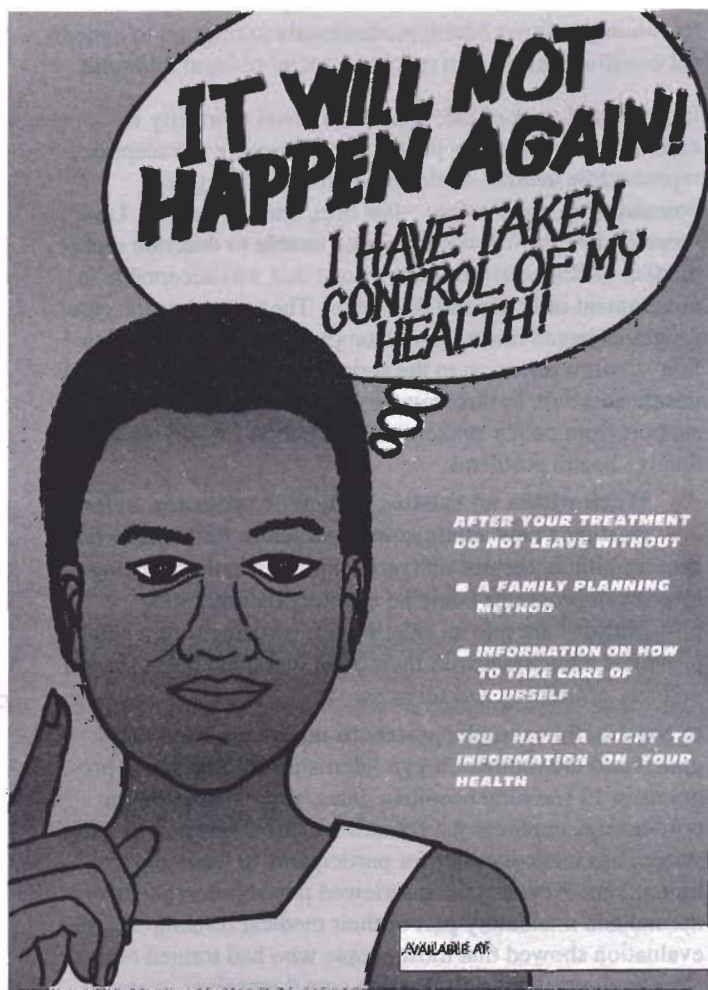
Where providers are trained to insert IUDs and *Norplant*[®] implants, these methods can be offered as well. In Nepal, for example, physicians trained in manual vacuum aspiration (MVA), as part of a postabortion care pilot project, also were trained to provide family planning counseling and services so that women could receive complete care in one place (177).

If no complications are present, sterilization services also can be offered to women and performed after postabortion treatment. Sterilization, of course, must always be fully voluntary. Counseling and informed choice are crucial. When it is unclear whether the woman has made an informed choice, she should be provided with a reversible method and a referral or follow-up appointment for sterilization later, after she has had more opportunity for consideration (33).

Setting up a postabortion family planning program requires (32, 33, 276):

- A private space for counseling women and providing reversible methods. The space could be an office that is rarely used, a corner of an examination or treatment room, or even a corridor or outdoor bench where the counselor and the woman can talk privately. A curtain can provide more privacy. In some settings counselors may be able to speak with women in the recovery room itself, once they feel well enough

(Continued on page 16)



An essential part of postabortion care, family planning services prevent repeated unsafe abortions. This Kenyan poster alerts women to their right to family planning information and services.

Postabortion Care Programming: Lessons Learned

by Charlotte E. Hord

In over 10 years of experience working with colleagues from over 20 developing countries to introduce postabortion care, Ipas has learned valuable lessons about the elements of successful programming. These lessons can help governments, nongovernmental organizations (NGOs), program planners, health care providers, and program managers plan and implement postabortion care programs. Key lessons include:

1 Use accurate language that works for the local setting.

The most important first step in a postabortion care program is being able to describe the issue of unsafe abortion accurately. Most people need help understanding the need for treatment of complications of unsafe abortion. Many people are uncomfortable discussing the topic of abortion, especially when legal restrictions on abortion exist. Using words that clearly describe postabortion complications as a public health problem can lessen public sensitivities by focusing attention on how to improve people's health.

Rarely is abortion totally forbidden or totally permitted in any country. Thus health care providers have found it useful to avoid terms such as "illegal abortion" to describe the condition of a bleeding woman and to use, instead, a more accurate medical description, such as "incomplete abortion." Such terminology allows health professionals to respond to a medical condition rather than react to a social or legal dilemma.

In Bolivia, for example, where maternal mortality is extremely high and few people use effective contraception, reproductive health—including family planning and postabortion care services—has been a taboo subject. Until recently, health workers have been unable to describe reproductive health problems in language that was acceptable to government officials and the public. Then postabortion care programs began referring to "complications of unsafe abortion" to draw attention to the serious health consequences of unsafe abortion. In this way they began to gain the necessary support from policy-makers and the public for solving reproductive health problems.

2 Work within an existing system or program.

Before creating a new administrative structure for postabortion care training or service delivery, explore whether existing systems or programs could be adapted. Incorporating postabortion care into an existing infrastructure often helps providers integrate it with their other work and helps sustain delivery of training and services.

In Nigeria, for example, postabortion care has been integrated into the routine ob-gyn internship and residency programs in 12 teaching hospitals. Integrating instruction in postabortion care into the framework of the hospital training system has made it easier for participants to learn and to train others. New physicians viewed postabortion skills as a normal and mandatory part of their medical training. A 1990 evaluation showed that most people who had trained others, after learning about postabortion care themselves, were working in teaching hospitals where they were authorized and expected to share their knowledge (205).

3 Establish services where women will seek them.

When deciding whether to integrate postabortion care with other services offered at a particular hospital or health center, first determine whether women would logically look for these services at that facility. Facilities that do not currently treat complications of unsafe abortion, such as most family planning clinics, would need to plan outreach to hospital staff, patients—and even the community at large—to inform them that postabortion services are now available at the facility. Because secondary and tertiary hospitals usually offer some level of postabortion treatment, they are reasonable places to seek integration. In contrast, primary-level health centers and stand-alone NGO clinics are more likely to need an education component when adding a postabortion care program.

When integrating postabortion services into a hospital-based family planning clinic, internal referral protocols should be adapted to allow women who need emergency postabortion care to be automatically referred to the family planning clinic and to insure that treatment is available elsewhere in the hospital during hours when the clinic is closed.

4 Be prepared for a new approach to family planning.

One of the biggest challenges of postabortion care for family planners is learning to recognize the differences between postabortion family planning and family planning provided postpartum or on a regular basis. While the typical family planning client is healthy, a woman who has just experienced an abortion may be physically ill, in great pain, and under emotional and physical stress. Service providers should adapt their counseling accordingly.

For example, when trainers from the Zimbabwe National Family Planning Council (ZNFPC), Zimbabwe's largest family planning service delivery organization, attended a special course in postabortion family planning, they were surprised to learn that, despite their expertise in family planning counseling, they needed new skills for talking with women who had experienced postabortion complications. While women seeking family planning usually are considered "clients," women treated for complications of unsafe abortion, instead, are "patients" with medical concerns that seldom arise in a typical family planning counseling situation. When counseling these patients, service providers should help the women identify the reasons for their unintended pregnancy in order to help them to avoid another one (161).

5 Be inclusive in preparing for a postabortion care program.

From the beginning, inform everyone who might have a stake in supporting the program or in opposing it. Listen to their suggestions and concerns and coordinate activities with them. If necessary, expand the planning process to include officials from the Ministry of Health (MOH) or other national or local officials, colleagues from other hospital or health center departments, and other people who have a particular interest in the issue. When organizing a local program within a hospital department or clinic, inform the entire staff of the planned changes, and explain their expected involvement in the new activity.

In Malawi, for example, a local physician initiated post-abortion care programming by convening a national group representing health professionals, donor agencies, and the MOH to review the problems of unsafe abortion and to propose an approach to resolving them. He presented data that met the concerns of policy-makers and also addressed the training and service delivery issues that were important to health care providers. As a result, the planning team was able to agree on a postabortion care strategy that addressed people's concerns.

6 Take a comprehensive approach to service delivery changes. As an alternative to sharp curettage for treating women with incomplete abortion, introducing manual vacuum aspiration (MVA) technology is a significant step toward improving postabortion care. Do not expect a change in technique to bring about other improvements automatically, however, unless changes also are made in patient management and service delivery. Program planners should consider whether such other aspects of patient care as the location of postabortion care services, the amount of time women wait before or after treatment, and any special training needed for staff working with postabortion women need to be adapted.

For example, in a South American hospital patients being treated for incomplete abortion originally received sharp curettage in an inpatient procedure room and were made to wait through a post-surgical observation period of approximately 10 hours. To improve the quality of services, the hospital began training staff to use MVA but did not adapt the hospital's protocols to make MVA an outpatient procedure, with quick discharge. Rather than travel home when discharged late at night, most women chose to stay overnight, thus increasing the cost of their treatment and crowding the hospital wards unnecessarily (128).

Procedures for linking various services may also need changes. For example, when contraceptive counseling after postabortion care is offered only in a family planning clinic, family planning clinic staff or an outreach worker should make daily rounds to the treatment area to ensure that each woman has the opportunity to talk with a family planning counselor. Ideally, family planning services and counseling can be offered in the same area where MVA is performed.

7 Establish a local, sustainable supply of MVA instruments and other important commodities. Just as family planning programs cannot offer a full range of options if certain contraceptive methods are unavailable, postabortion care programs will be incomplete without a consistent and accessible supply of needed instruments and related commodities. New programs should look ahead to when a donor agency will no longer provide support. Having MVA and postabortion care recognized officially as part of the public health system will make it easier for government hospitals and health centers to request MVA instruments and commodities as part of their regular supply needs. For their part, government administrators can plan for a long-term supply by including MVA instruments and commodities in the national equipment registry or a similar listing of officially approved medical supplies.

8 Plan for decentralization. Postabortion care should be as widely available as possible. In many cases women will not survive the journey to a referral hospital because it is too far away. In Nicaragua the MOH, having identified postabortion care as a service needed at the community level, has adopted a decentralized approach and organized 16 local comprehensive health care systems that are responsible for health care training, provision, and management at the community level. All 16 have organized service delivery programs for hospitals, and some also offer training. About half offer decentralized postabortion care at the health-center level (117).

9 Work for policy support for postabortion care. For postabortion care to become widely accessible and to respond to women's needs, supportive policies must be adopted and promulgated. Grassroots activists and health care professionals who understand the needs of women and their families can be vital sources of information for policy-makers. Information can be conveyed by:

- Disseminating printed information, studies, and results from other postabortion care experiences that show how postabortion care can save women's lives.
- Organizing regional or national conferences to discuss the need for postabortion care and to review the local capacity for implementing postabortion care, and
- Conducting pilot demonstration projects that illustrate the approaches likely to succeed in a particular context.

Policy-makers respond to concise information that describes the problem, proposes solutions, and covers such areas as the potential to improve care while also conserving resources by adopting a planned postabortion care approach. Many articles and studies have highlighted the benefits of postabortion care. These can be useful references for developing advocacy materials.

For example, in 1994 the Commonwealth Regional Health Community Secretariat (CRHCS), the coordinating body for health issues in 13 countries in Central and Southern Africa, undertook a study, with technical assistance from Ipas and the Johns Hopkins Program for International Education in Reproductive Health (JHPIEGO), to collect evidence of the magnitude of the problem of unsafe abortion and to encourage policy-makers to identify specific program strategies to address the problem. Information was collected in two ways: (1) a 3-country, 13-hospital study of provider and patient perspectives and the costs of treating abortion complications; (2) a review of the literature on abortion in the region. A monograph summarizing the results and making recommendations was prepared and presented to the Conference of Ministers at its annual meeting in November 1994 (145). As a result, the Ministers agreed to raise the issue of unsafe abortion in their own countries and to develop appropriate local action plans to address this issue.

Charlotte E. Hord is on the staff of Ipas (International Projects Assistance Service), an international not-for-profit, nongovernmental organization dedicated to improving women's health through a focus on reproductive health care.



A Kenyan pamphlet offers a crucial message after postabortion care: You can get pregnant again immediately. Other crucial messages: Family planning methods are safe and effective after postabortion treatment. Counseling and services are available.

- A reliable supply of informational materials and range of contraceptive methods and an inventory system for ordering supplies in time to avoid running out.
- A secure but accessible space for storing contraceptives and informational materials. If the storage area is locked, at least one staff member per shift needs to have a key.
- If possible, an adequately equipped space for clinical procedures such as pelvic exams, insertion of IUDs and *Norplant* implants, and voluntary surgical sterilization, as well as a reliable supply of the materials and instruments needed for these methods and a system for equipment sterilization and infection prevention.
- Training for providers in family planning counseling and services. Training will need to inform clinicians about national and local policies on contraceptive services so that misunderstandings do not delay or deny services to women treated for abortion complications.
- Reliable funding, administration, and management. The program manager must monitor quality of services and coordinate hours of operation with other departments, ensuring that trained staff are available for all shifts, that new and rotating staff receive family planning training, and that sufficient supplies are stocked.

Making referrals. Family planning programs already established within the hospital itself or in the community can provide family planning counseling and services to women treated for abortion complications. Ideally, providers from the family planning program visit the emergency treatment facility regularly to offer women family planning counseling and services while they await discharge from the hospital. They provide contraceptives during the initial visit and arrange referrals for women who want additional services or other contraceptive methods that the provider cannot supply immediately. To increase the effectiveness of such referrals, staff offer to accompany women to the family planning clinic (276).

At the least, emergency care providers need to give every woman a clear, specific referral to an accessible family planning provider (200). At all levels of the health care system, providers can and should give each woman:

- The name of at least one family planning provider or clinic;
- Its location and the days and times that clients can receive services. Providing maps helps, especially if they are understandable to illiterate clients;
- A client brochure, where available, about family planning methods or about the family planning service.

Whenever possible, a family planning counselor should be on hand at the postabortion treatment site because referring women to another area for family planning may have only limited success. At two Zimbabwean hospitals, for example, the number of women adopting a contraceptive method doubled after family planning counselors were hired to provide services on the emergency ward where women received treatment. Counselors provided oral contraceptives and condoms at the hospital and then escorted women needing other services to the family planning clinic (32, 172).

Rapid return to fertility. All women treated for abortion complications need to receive certain key information about their rapid return to fertility and the availability of family planning and other reproductive health services. After abortion a woman's fertility returns almost immediately—usually within two weeks. The rapid return to fertility makes it especially important that women who will be sexually active and who want to avoid another pregnancy decide quickly whether to use a family planning method. Many women, however, do not know that they can become pregnant again soon after abortion. Many mistakenly believe that after abortion they will experience something similar to the usual postpartum delay in return to fertility (20, 161, 247).

Few women are told about their rapid return to fertility when they are treated for abortion complications. In Turkey, for example, survey data show that fewer than 10% of women undergoing abortion were told that they could become pregnant again within two weeks (262). In Kenya, at six hospitals where women were treated for postabortion complications, only 13% of patients were told about the rapid return to fertility (243).

To provide complete care and help women avoid future unintended pregnancies, all emergency staff need to be trained to discuss three key points about family planning with every woman (161, 279):

- 1 Fertility returns rapidly—**
She could become pregnant again right away.
- 2 Modern family planning methods are safe and effective after treatment for abortion complications—**
She can delay or avoid another pregnancy by using family planning.
- 3 Family planning information, services, and counseling are available—**
Her health care provider can help her obtain and use family planning.

Which methods after abortion complications? In general, all modern family planning methods are safe and effective to use after treatment of abortion complications, but the appropriateness of each method varies with the individual woman's condition and her personal needs (161, 277, 279). Factors such as the severity and nature of the woman's complication and her current overall health influence which methods

are most appropriate for her immediate use. For further information on contraceptive method choice, see the chart "Family Planning Following Postabortion Treatment," included with this issue of **Population Reports**, and box, p. 12.)

Counseling for Every Woman

Counseling is an integral component of postabortion family planning services. Every woman treated for abortion complications needs and deserves family planning counseling. Family planning programs have repeatedly found that women are more likely to begin using a family planning method and to use it effectively when they are adequately and effectively counseled than when they do not receive counseling (79).

Although evaluations specifically of the effects of postabortion family planning counseling have begun only recently, they suggest that counseling is as important for women recovering from abortion complications as for other family planning clients—and often more important (90, 92, 246). Also, when a woman has had an unintended pregnancy because she did not understand how to use her method or stopped using a method that had unacceptable side effects, the counselor can help the woman correct her method use or switch methods.

Family planning counseling can be the crucial step for a woman in deciding to use a family planning method, learning to use it correctly, and continuing to use it (42, 79). For example, among Egyptian women treated for abortion complications, when counseling was increased, intent to begin using family planning also increased (103). Among Nigerian women treated in four hospitals for incomplete abortion, 39% of those counseled about family planning began using a method, while only 8% of women not counseled did so (64). Also, providing counseling after postabortion care was associated with a significant overall reduction in the risk of repeat unintended pregnancy, according to a study that looked at data from Kenya, Mexico, Nigeria, Zambia, and Zimbabwe (180).

What is good counseling? Good counseling is a discussion between provider and client that helps each woman apply family planning information to her own circumstances, make her own decisions based upon her specific needs and wants, and act on these decisions (79). By listening to a woman and paying attention to her needs, a counselor can help her make a considered, informed decision about family planning (143, 200, 202). No single approach to counseling suits all situations or meets all women's needs (278). Postabortion family planning counseling that is flexible and treats women as individuals is most likely to meet women's needs (161).

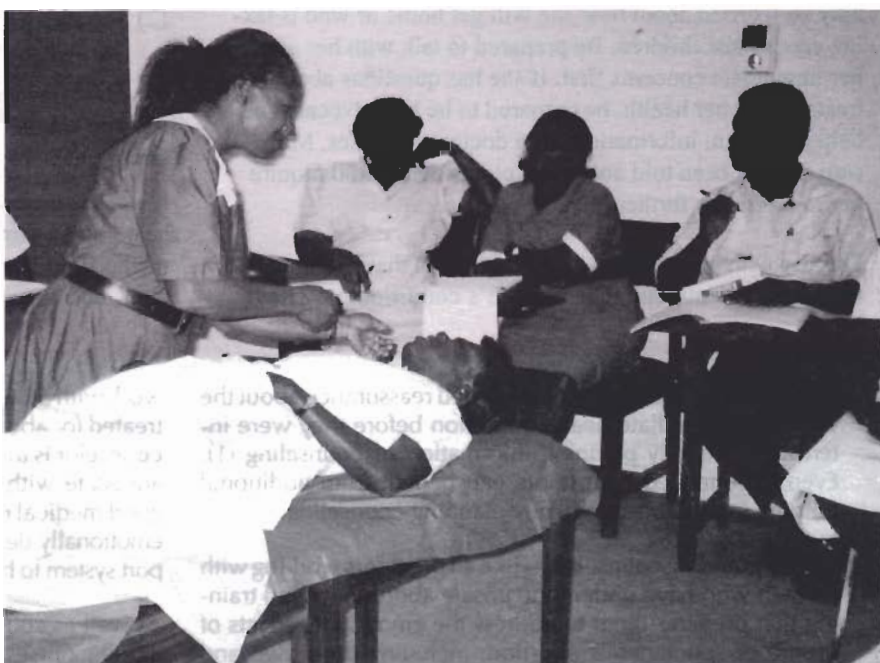
Effective family planning counseling relies on interpersonal skills—chiefly active listening and attending behavior (18, 79, 276). Active listening means acknowledging what the woman has said; paraphrasing and summarizing her statements; reflecting back her feelings with summary statements or questions; encouraging her to speak and to ask questions; and responding directly and hon-

estly to her questions and to the information she provides about her personal situation.

Attending behavior means using nonverbal cues that show that the counselor is paying close attention: leaning forward and facing the client, establishing eye contact, smiling, and sitting squarely, for example. Such nonverbal cues help establish rapport and trust between the counselor and the woman (79, 144, 163, 276).

An effective counselor avoids pressuring a woman to choose a particular method but, instead, guides her in evaluating which methods best meet her own needs. Achieving a balance between listening and giving advice can be challenging. Service providers who have been trained to *tell* patients what they *need* to do from a medical standpoint often find it difficult to emphasize choice because they know much more than their clients know about contraception. For example, a study observing service providers in India found that doctors urged postabortion women to use IUDs or voluntary surgical sterilization, without considering the woman's own needs or her reproductive goals (200). Conversely, a study in Kenya found that many family planning counselors were offering *too little* guidance to women in evaluating medical information and applying it to the women's personal situation because counselors wanted to avoid pressuring the women (143).

Training counselors. Training improves counseling. Trained counselors ask women more questions about themselves, listen better to their answers (246), and give them more information (104). Training is especially important to effective postabortion family planning counseling because postabortion care often takes place as part of a medical and emotional crisis. Counselors usually must help postabortion women address a broader range of issues than other family planning clients need to address, including immediate health concerns as well as possible future psychological suffering and social consequences (141). In Egypt, for exam-



Every woman deserves empathic, helpful counseling after postabortion treatment. Role-playing during training, shown here in Ghana, helps providers to overcome any negative attitudes and recognize that each woman's circumstances are unique.

The **GATHER** Approach to

GATHER is an acronym for **GREET-ASK-TELL-HELP-EXPLAIN-REFER**. Each of these represents an important element of family planning counseling, including postabortion family planning counseling (163). The **GATHER** approach is used around the world for counseling and training and to help family planning providers on the job recall the elements of counseling. Following the **GATHER** approach, postabortion family planning counselors should:

G **GREET** the woman politely by name. Introduce yourself by name. Ask the woman how she is feeling and if she feels well enough to talk with you about family planning.

If she does not feel well enough to talk: Make arrangements to return to speak with her later. Give her a brochure or card with your name on it, and invite her to ask for you before she leaves. If possible, find out when she will be discharged and make arrangements to return before she leaves.

If she feels well enough to talk: Go with her to a place where you can talk privately. Ask the woman if she would like to include her partner or anyone else in the discussion or if she prefers to speak with you privately. Explain to her that you will not tell others what the two of you discuss, and honor this commitment. Women treated for postabortion complications often need extra reassurance about confidentiality.

A **ASK** the woman how she is and when she will go home. Express concern and empathy for her situation. Some women will want to talk about their treatment, and others may not. The woman has just experienced a medical emergency and may still be frightened and in pain. She may be worried about how she will get home or who is taking care of her children. Be prepared to talk with her about her immediate concerns first. If she has questions about her treatment or her health, be prepared to be her advocate and help her obtain information from doctors or nurses. Make sure she has been told about symptoms that would require her to return for further medical care.

Discuss with her in broad terms the events that led up to her emergency treatment. The woman's condition may have

resulted from the miscarriage of a wanted pregnancy. Do not assume that all women treated for abortion complications want to avoid another pregnancy. Ask whether or not she wants to become pregnant again soon. Tailor your discussion to the woman's responses.

If she desires pregnancy again soon: Express compassion for her loss and help her to obtain the reproductive health services she needs.

If she does not want to become pregnant again soon: Help her to reduce the chances of another unintended pregnancy by offering her family planning.

The woman may lack access to family planning or may worry about side effects of using modern methods. She may be under pressure from her partner (or family) to use (or not to use) a particular method. She may be exposed to sexual coercion or violence. Do not assume anything about the woman, the circumstances of her unintended pregnancy, or her reasons for abortion. Instead, listen to her and express empathy. Help the woman to assess whether the events that caused her unintended pregnancy could lead to another pregnancy. Help the woman to assess her need for contraception, including a realistic view of whether or when she will have sexual intercourse again. For example, an adolescent may say that she is not going to have sex again, but she may either change her mind or be pressured into sex later. Some women who do not want to resume sexual relations immediately may nevertheless be pressured or coerced by partners.

In counseling the woman, emphasize three points:

- (1) She could become pregnant again right away.
- (2) She can delay or avoid another pregnancy by using family planning.
- (3) You can help her obtain and use family planning services.

Ask the woman if she is interested in learning more about family planning. Ask if she has ever used family planning.

If she has never used family planning: Ask her what she has heard about family planning. Ask if she prefers a particular method and for what reasons. Encourage her to ask questions, and answer them clearly and directly.

ple, women and their partners wanted reassurance about the woman's immediate health condition before they were interested in family planning information or counseling (1). Even experienced counselors can benefit from additional training in postabortion family planning counseling.

Family planning counselors—like all providers working with women who have undergone unsafe abortion—need training that prepares them to address the emotional aspects of unsafe or spontaneous abortion, including their own and others' attitudes toward abortion (see p. 11). Many counselors and providers need to learn to put aside their biases so that they can empathize with women and counsel them compassionately. Training can also prepare counselors to

work with others who have punitive attitudes toward women treated for abortion complications. Often, a family planning counselor is the only person available to serve as a woman's advocate with other providers to ensure that she receives good medical care. Because postabortion counseling can be emotionally demanding and draining, counselors need a support system to help them avoid emotional burnout themselves.

As well as counselors themselves, other staff members—including nurses, midwives, physicians, social workers, nurse aides, and other family planning service providers—can learn how to provide counseling. One or two members of the staff can be trained to specialize in family planning counseling, or the entire staff can share the responsibility. Volunteers

Postabortion Family Planning Counseling

If she has used family planning in the past or was using a method when she became pregnant: Help her to assess what went wrong so that she can avoid another unintended pregnancy. She may distrust her contraceptive method or even all methods. She may need help correcting her method use, finding reliable resupply, talking with her partner, or switching to another method.

T **TELL** the woman briefly about various family planning methods as appropriate, relating them to her particular situation and needs. For example, if she says she does not want another child for several years and wants a method that she does not have to worry about every day, tell her especially about the long-term effectiveness of injectables, *Norplant* implants, and the IUD, if these methods are available. Use any visual aids you have, such as flip charts, posters, and brochures, to better describe the methods. Have samples of various methods available so that the woman can see them and handle them if she wishes. Encourage her to ask questions.

H **HELP** the woman consider her own situation and her contraceptive needs as well as any other issues that affect her ability to use contraception (including the situation that led to unintended pregnancy). Help her to decide which method or methods best fit her needs. If the woman wants a particular method and has no medical reason not to use that method, focus on that method to help her decide whether it will meet her needs. For example, you can ask, "Do you think you can remember to take a pill every day?" or "Can you tell your partner that you are using family planning?"

Do not choose a method for the woman; instead, help her to assess her needs, to match them with the various methods, and to choose the method that best meets her needs and fits her preferences.

Make sure that the woman's physical condition or recent treatment does not rule out the method she wants. (See enclosed wall chart, "Family Planning Following Postabortion Treatment.") Provide the method she has chosen, if medically appropriate.

also can be trained to offer women basic family planning information (276). All medical staff members who interact with clients during emergency care need training that helps them to provide women with nonjudgmental care (246).

Using GATHER in postabortion counseling. The GATHER approach to counseling (163), already familiar to many family planning providers, can guide postabortion counseling as well. The box on pages 18–19 emphasizes aspects of postabortion family planning counseling that differ from other family planning counseling. These differences include:

- Assessing and meeting the women's immediate concerns first,
- Discussing miscarriage,

E **EXPLAIN:**

- How to use the method, giving a step-by-step description;
- How to discuss use with her sexual partner, if possible;
- How to become comfortable and accustomed to using the method;
- How to continue use, including how and where to get supplies and follow-up care when needed;
- How to deal with common side effects, if any, including which symptoms are not serious, and which, if any, could be warning signs of a more serious condition that requires seeing a doctor or nurse.

Encourage the woman to ask any questions. Ask her to repeat instructions to be sure that she understands.

R **REFER** the woman for a return visit and follow-up care, as needed. If the woman traveled a long distance for emergency treatment, refer her to a family planning clinic or another source of family planning close to her home, whenever possible. (You will need to learn what services are available in other areas, including pharmacies that sell contraceptives). Encourage her to see a family planning provider any time that she needs more supplies or has questions or concerns. Develop a referral and follow-up protocol for women who do not want to decide about family planning immediately after their postabortion treatment.

At any follow-up visit:

- Assess whether the woman is in good health and satisfied with the method she is using;
- Address any side effects;
- Support and encourage the woman to continue effectively using contraception, if that is her intention;
- Help the woman stop or switch methods when she wishes or when it is appropriate for medical reasons.

If the woman did not have the opportunity to make an informed choice at the time of her postabortion treatment, the follow-up visit should include complete family planning counseling.

Always ask the woman if she has any questions, and provide the answers. Always ask if the woman needs other reproductive health care, and provide appropriate care or referral.

- Addressing the cause of the unintended pregnancy,
- Helping women find family planning services close to home.

The six GATHER elements are meant to guide a dynamic discussion with the woman that grows from the woman's individual situation, concerns, and needs. Counselors should use the GATHER approach to engage in a discussion with the woman, in which the provider and the woman both provide information, ask questions, and listen to each other. Counselors, of course, should avoid simply going through the steps and checking off each one as they complete it. Counselors are best able to help women identify and meet their reproductive health needs when they treat counseling as an interactive process.

Appropriate Care: MVA and Local Anesthesia

The vast majority of women seeking emergency care for abortion complications are suffering from incomplete abortion. Incomplete abortion means that the uterus has not been completely emptied and contains retained tissue. If not treated promptly with uterine evacuation, incomplete abortion can cause hemorrhage or infection, which can then lead to death (277, 282). In most cases, manual vacuum aspiration (MVA) under local anesthesia is the appropriate treatment for postabortion complications. MVA is preferable to sharp curettage (also known as dilation and curettage, or D&C), the technique that is still most often used in much of the world (94, 186, 277, 282).

Switching from sharp curettage to vacuum aspiration for treating complications through 12 weeks' gestation is central to improving postabortion care in developing countries. In most developing countries, switching to vacuum aspiration means introducing *manual* vacuum aspiration. While electric vacuum aspiration is also appropriate for postabortion care, its availability is limited in developing countries. The World Health Organization (WHO) recognizes vacuum aspiration as the most appropriate method for treating early incomplete abortion. In fact, WHO considers MVA an essential element of care at the first referral level of all health care systems (282, 283).

Improving Postabortion Care with MVA

The effectiveness of vacuum aspiration for uterine evacuation is well-documented. In 19 US studies evaluating more than 5,000 vacuum aspiration procedures for treatment of incomplete abortion, effectiveness rates (defined as complete evacuation of the uterus) ranged from 95% to 100% and generally exceeded 98% (86). Studies in Egypt, Kenya, Nigeria, and Zimbabwe, looking specifically at MVA, found it to be effective in 98% of early incomplete abortion cases treated (63, 65, 146, 172, 268). The Zimbabwe study found MVA effective for treating cases of early septic abortion as well (268).

Furthermore, studies have shown that MVA, when performed under local anesthesia on an outpatient basis, offers significant advantages over sharp curettage—advantages for women as well as for the health care providers and systems that serve these women (40, 93, 214, 277). Specifically, compared with sharp curettage, MVA with local anesthesia:

- Increases women's access to postabortion care,
- Shortens waiting time,
- Reduces the risk of complications during treatment,
- Reduces the cost of postabortion care, and
- Facilitates links between emergency postabortion care and family planning services.

Increases women's access to postabortion care. MVA is a simple way to extend and improve emergency care for abortion complications (63, 86, 277). Where medical personnel and operating room resources are limited, MVA can be performed safely by trained nonphysicians on an outpa-

tient basis (86, 186, 277). Also, because MVA equipment is inexpensive and does not require electricity, MVA can be introduced at primary levels of the health care system and in rural settings, where resources are limited and effective postabortion care is less accessible than in cities (186, 282).

Shortens waiting time. When performed using local anesthesia, MVA treatment takes less time than sharp curettage, which is usually performed with general anesthesia. Also, because general anesthesia is not used, less time is needed to prepare both the patient and the treatment area. As a result, women do not have to wait as long (41, 63, 126, 127, 134, 268). In Zambia, for example, switching from sharp curettage to MVA and changing patient management reduced waiting time for treatment from 12 hours to 4 to 6 hours (41). Also, patient recovery time is shorter after MVA (86).

When MVA is performed by nonphysicians at lower levels of the health care system, it can reduce the caseload at higher-level facilities. This frees operating rooms and specialists at hospitals and reduces waits for women with the most serious complications who require immediate treatment (see p. 23).

Reduces the risk of complications during treatment. Complication rates are substantially lower for vacuum aspiration procedures—both electric and manual—than for sharp curettage (85, 257). Recent studies in developing countries find that MVA leads to fewer complications than sharp curettage specifically in treatment of incomplete abortion (65, 146, 172, 268). In Zimbabwe, for example, researchers found one-fourth as many complications with MVA as with sharp curettage. In particular, blood loss was substantially less with MVA (268).

Because MVA is less painful than sharp curettage, women require less pain-control medication during the procedure (146). Thus MVA is performed with local anesthesia and light sedation. The risk of adverse reaction to general anesthesia is avoided (214, 293).

Reduces the cost of postabortion care. Switching from sharp curettage to MVA saves money and thus can free resources for other obstetric or gynecologic services (22, 38, 40, 71, 89, 126, 127, 128, 150, 214). For example, in Kenya the average treatment cost per patient fell 66% in one hospital and 23% in another, primarily because of dramatically reduced patient stays when MVA replaced sharp curettage. After a Mexican hospital switched from sharp curettage to MVA, the cost of treating patients with abortion complications fell by over 75% (126, 127, 128). Another study in Kenya found that, on average, women treated with MVA stayed at the hospital less than six hours after treatment, while those treated with sharp curettage were hospitalized for one to three days (146). In Nepal, when an MVA pilot project was introduced at the major maternity center in 1995, average length of stay for postabortion patients was reduced from 36 hours to just 3 hours. Within the first six months after its introduction, MVA saved the hospital and the women it served 400 days of hospitalization and 282 surgeries under general anesthesia (177).

Savings are possible because, compared with sharp curettage, MVA with local anesthesia requires:

- Fewer staff,
- Fewer expensive medications for pain relief,
- No operating room facilities, and
- Less recovery time (fewer overnight hospital stays before and after treatment).

Facilitates links between emergency postabortion care and family planning services. Because only low levels of pain control medication are required with MVA, women recover quickly and often feel well enough to talk with a family planning counselor while recovering. Counselors can visit women to offer family planning counseling and services before they leave the hospital or can escort women to family planning facilities (105, 214) (see p. 16).

Introducing MVA

A postabortion care program usually is introduced at a national training center or teaching hospital, where providers are trained to use MVA to treat postabortion complications. Later the program is expanded to lower levels of the health care system (103, 116, 177). Regardless, however, of whether providers are trained to switch to MVA or to use conventional sharp curettage, programs need to adopt a comprehensive approach to improving care. This usually means re-organizing services and patient flow in addition to training providers.

Training providers. Postabortion MVA training requires a high level of technical assistance from experienced trainers, especially in the start-up phase. Later, on-going training and supervision help providers maintain skills and assure quality of care (186). Training usually involves a brief, intensive course on the basic steps of MVA, infection prevention, and family planning. For example, recent pilot projects in Egypt and Nepal tested models for introducing MVA, using 6-day, competency-based training programs for physicians. The Population Council provided training at two Egyptian hospitals, and the Johns Hopkins University Program for International Education in Reproductive Health (JHPIEGO) provided training at a maternity hospital in Nepal. Training focused on learning by doing, beginning with practice on anatomic models. After training, providers performed MVA under the close medical supervision of an experienced clinician during the first few months (103, 177). Currently, training programs in postabortion MVA have started in over 20 countries in Africa, Asia, and Latin America (186).

Site selection. Choosing the right site is important when first introducing MVA training. Key personnel at the chosen site must have a commitment to postabortion care and provide strong leadership in adopting new treatment protocols. Also, adequate training requires a high volume of abortion complication cases. Thus hospitals that already treat abortion complications are a logical choice for introducing MVA; staff can be trained to switch from using sharp curettage to MVA. In the Nepal pilot project, for example, the national maternity hospital was selected as the initial training site because 1,400 women a year seek treatment there for postabortion complications, and the hospital trains many medical personnel (177).

Treatment area. Hospitals may need to redesign their treatment areas and plan patient flow to avoid unnecessary delays and overnight stays. For example, performing MVA in a separate treatment room frees the operating room for other procedures (127). Also, because women need to be quickly and easily transferred from the admitting area to the MVA treatment area, its location in the hospital is critical. In Kenya

National Hospital, for example, MVA was introduced in a procedure room directly opposite the admitting room (134). In Nepal the postabortion care unit was set up in a room adjacent to the admitting room (177).

Patient management. Because abortion complications range from simple to life-threatening, a triage, or screening system helps to manage the flow of patients so that each receives appropriate, prompt care. In the Nepal pilot project, for example, a flow diagram helped providers determine the severity of each woman's condition, using information from a brief reproductive history and a physical exam (177).

Equipment and supplies. While MVA requires little specialized equipment and few drugs, providers need to develop a system for continued resupply of MVA kits and other consumable items such as cotton, gauze, disinfectants, and soap; pharmaceuticals such as antibiotics, local anesthesia, pain medications; and intravenous fluids (293). Introducing MVA also requires coordinating with other hospital departments such as those in admitting, pharmacy, medical records, clinical laboratory, equipment and supply, and with surgical, obstetrical, and gynecological departments, so that each understands its role in the new treatment practices (177).

Managing Pain During Postabortion Care

Pain management is an often-neglected aspect of improving postabortion care. Women often experience pain from the method used to induce the abortion as well as the pain associated with uterine evacuation, whether sharp curettage or MVA is used. Additionally, women are likely to be anxious and frightened. Reducing the woman's pain requires: non-judgmental staff, a calm environment, the use of an appropriate level of available pain medication, and supportive counseling (146, 172, 178, 199, 249, 277).

When available, pain medications should not be denied to women undergoing postabortion care (172). Often, however, women treated for postabortion complications receive no pain control—neither medication nor counseling. While in some cases drugs, needles, syringes, and intravenous



The first steps to better postabortion care are whatever steps can be taken now. Switching to local anesthesia and manual vacuum aspiration is important. In Brazil a trainer demonstrates aseptic technique for handling instruments.

Family Planning Can Prevent Abortion

Opponents of family planning programs often say that using family planning encourages the use of abortion as well. To the contrary, comparative data and historical evidence show that abortion rates are lowest in societies where more couples use effective contraceptive methods. For example, in industrialized countries where at least 30% of couples rely on oral contraceptives (OCs), intrauterine devices (IUDs), or voluntary sterilization, abortion rates are the lowest in the world, according to a 1989 study of 16 countries. Abortion rates were twice as high in countries where the use of OCs, IUDs, and voluntary sterilization was below 30%. "The principal effect of using a highly effective method of contraception is to reduce the incidence of abortion," the study concluded (131).

Trends. Over the long-term, increasing contraceptive use can and does reduce abortion (56, 77, 94, 265). This trend has been consistently demonstrated at different times in many countries and different cultures. Chile is the most often cited example: In the 1960s, after the government started an intensive family planning program that increased contraceptive use sevenfold, the number of women treated at hospitals for abortion complications decreased markedly (51, 167).

Other historical examples come from Japan and Hungary. In Japan abortion was a significant factor in the country's initial fertility reduction (94), but as contraceptive use rose between the 1950s and the 1970s, the abortion rate dropped (77). In Hungary, between 1966 and 1977, as OCs and IUDs replaced traditional methods as the preferred family planning methods among most contraceptive users, the abortion rate, which had been rising during the 1950s and early 1960s, dropped sharply (42, 77, 265, 301, 305) (see Figure 1).

More recently, a similar trend has been seen in elsewhere around the world. In Bogota, Colombia, for example, while use of contraception increased by 33% between 1976 and 1986, the abortion rate dropped by 45%, from 49 abortions per 1,000 women to 27. In Mexico City and the surrounding region, a 24% increase in contraceptive use between 1987 and 1992 was accompanied by a 39% drop in the abortion rate, from 41 abortions per 1,000 women to 25 (239). In Russia, after family planning programs began in 1991, contraceptive use increased and the abortion rate dropped. In 1995 the abortion rate was one-third lower than it had been in the 1980s (136). In Kazakstan between 1988–89 and 1993–95, Pill and IUD use rose by 32%, while the abortion rate dropped by 15%—"clear and convincing evidence that contraception has been substituted for abortion" (304).

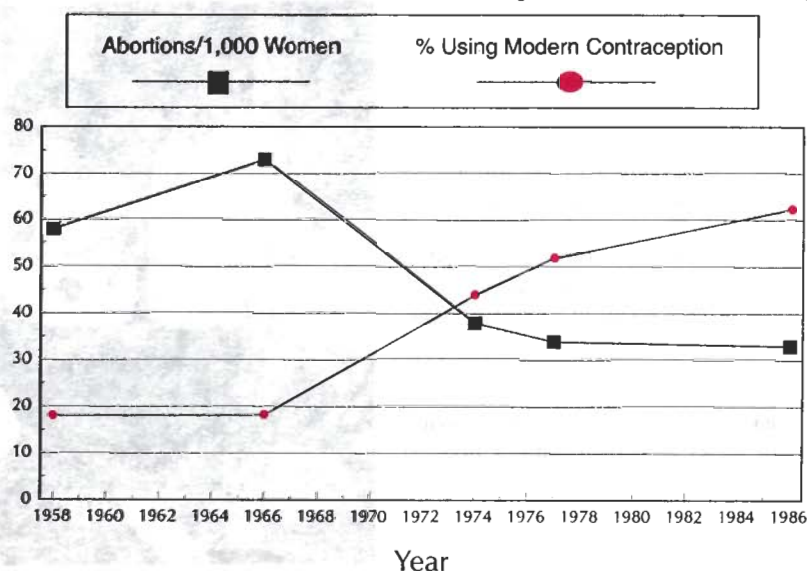
Behind the trends. What explains these trends? In countries where the desire to have fewer children has become the norm but where contraceptive use remains low, usually because contraception is not yet widely available and accessible, abortion rates often rise, even as contraceptive prevalence rises. Eventually, however, as awareness and availability of contraception catches up with people's desires to have fewer children, contraceptive use becomes widespread and abortion rates fall (56, 77, 94, 237, 265). Thus any rise in abortion rates represents a short-term phenomenon that often occurs during the initial stages of a country's fertility transition.

This has been the pattern in Japan, Mexico, Russia, South Korea, and Thailand (77, 94). The case of South Korea is typical. While contraceptive use increased from 24% in 1971 to 77% in 1988, the abortion rate peaked in 1978, and by 1991 it had dropped by one-third (94, 210, 265).

Increasingly, women in developing countries want to have fewer children. For example, comparing data for 15 countries surveyed by the World Fertility Survey in the 1970s and again by the Demographic and Health Surveys since 1985, Charles Westoff found that the desired number of children has declined in all 15 countries, in most by 20% to 25% (271). Few developing countries, however, have reached the point where contraceptive use is widespread enough to meet the needs of almost all women who want to avoid pregnancy (226).

Many women treated for complications of unsafe abortion have not used family planning but say that they would be interested in it (see p. 13). Improving family planning programs by providing more contraceptive methods, making them more convenient to obtain, and offering more information and better counseling would help many women and men use contraception and would help reduce abortion rates.

Figure 1. Abortions and Contraceptive Use in Hungary



Source: Balogh & Lampe 1994 (301) and United Nations 1992 (303)

equipment are not available, in others, the lack of pain control—both medical and verbal—may reflect providers' negative attitudes (3, 200, 243). For example, in Kenya some providers said women should be *made* to feel pain during MVA so that they would avoid future unsafe abortions (243).

Pain medications. Because the procedure lasts only a few minutes and the woman's cervix often is already dilated and soft, MVA usually can be performed with minimal pain (277). Local anesthetics, analgesics, sedatives, or some combination of these three can be used to control pain during MVA, depending on the severity of pain and the availability of the medications (178, 296). Local anesthetics numb physical sensation, while analgesics alleviate pain in the receptors of the spinal cord and brain. Sedatives do not actually reduce pain; they are used to relieve anxiety and relax muscles.

Local anesthesia. When additional dilation of the cervix is needed, local anesthesia, in the form of an injected paracervical block, is used (296). Two frequently used local anesthetics are lidocaine (*Xylocaine*) and chloroprocaine (*Nesacaine*) (178).

Using local anesthesia rather than general anesthesia is safer and less costly and offers several advantages (178, 199):

- The woman is awake throughout the procedure. She can report changes in her condition to providers.
- The woman recovers within 5 to 15 minutes, without the nausea or headache often associated with general anesthesia.
- Depressed breathing and suppressed gag reflex, which can occur with general anesthesia, are avoided, markedly reducing the risk of anesthesia-related death.
- The woman need not be restricted from eating before the procedure. Making women aware that they can eat while awaiting treatment is especially important if women must wait a long time for treatment.

Sensitive counseling. Ensuring that women receive counseling is a critical part of switching from general to local anesthesia for postabortion care. Where women receive little or no pain medication, counseling is especially important. Women need and deserve counseling and reassurance both before and during treatment, whether MVA or sharp curettage is used.

Counseling during the procedure is an important pain control strategy (3, 177, 178, 243, 249, 277). Fear and anxiety can increase pain (30). At six hospitals in Kenya, for example, few women, whether treated with MVA or sharp curettage, received any information about the procedure itself or any counseling before or during the procedure. Only 3% of women treated with MVA received pain medication, and, although sharp curettage is usually done under general anesthesia, only 44% of women treated with sharp curettage received pain medication. Typically, patients became nervous and anxious before the procedure. During the procedure, providers and other staff did not talk to the women, and they became more afraid and physically tense. Whether treated with MVA or sharp curettage, over one-half later described the pain they experienced as "extreme" (243).

The provider's technique when performing MVA also can affect the level of pain (249, 277). Rough handling, as well as quick, jerky movements during MVA, can increase pain (277). In contrast, women's fear and pain levels are less when postabortion care is provided by calm, unhurried providers, without interruptions, in a quiet place (178).

For counseling to help reduce pain, the provider or another member of the clinical team explains each step of the procedure to the woman before it begins (296). During treatment, the provider or another staff member talks to the woman in a relaxed way, focusing her attention away from the discomfort of the procedure (277). Often one counselor or other member of the clinical team stays with the woman throughout the procedure (199, 249).

For many providers accustomed to treating patients who are under general anesthesia, communicating with patients during treatment can be a challenge. Many providers need training to learn how to reassure and counsel women who remain awake during their postabortion treatment (277) (see p. 17).

Prompt Care: Referral and Decentralization

Postabortion care can be effective only if women with abortion complications reach emergency care in time. Delays put women's lives at risk. Diagnosing complications of unsafe abortion quickly and treating or referring women promptly can prevent lifelong disability and save lives. Thus establishing a formal referral system and offering care at the lowest possible level of the health care system are key to improving and expanding postabortion care. At the same time, a postabortion care plan must work to ensure that women with severe complications receive the specialized care they need. Also, educating providers and the public about the need to seek medical care immediately when abortion complications arise can help women seek care in time (282).

Setting Up a Referral System

A postabortion care referral system is a network among health care providers and facilities that makes emergency treatment more accessible more quickly to more women (22, 71, 277, 282). A referral system offers women some degree of postabortion care at every level of the health care system, while linking the different levels through an established communication and transport system. In a well-designed referral system, postabortion care is decentralized as much as possible, with each level of care playing a specific role (186, 282).

Within a postabortion care referral system, providers at all levels of the health care system are trained to:

- **Recognize** complications of abortion and gauge their severity;
- **Treat** complications promptly when they have the skills and equipment; and
- **Refer** women they are unable to treat to a facility where they know adequate treatment is available.

Table 3 shows the four levels of a typical postabortion care referral network—the community, primary, first referral, and secondary or tertiary levels. It describes the staff and the types of health care services available at each level as well as the facilities, equipment, and supplies needed for effective management of postabortion complications. It also describes the family planning services offered at each level.

Health care workers at the community level. When trained to recognize the signs of abortion complications and to

(Continued on page 25)

Table 3. Postabortion Care Referral Network

Staff May Include:	Emergency Postabortion Care Provided:
Community Level	
<p>Those given basic health training, including:</p> <ul style="list-style-type: none"> • Traditional birth attendants • Traditional healers • Community residents 	<ul style="list-style-type: none"> • Recognition of abortion complications and spontaneous abortion • Timely referral to formal health care system • Health education on unsafe abortion • Family planning information, education, and supplies
Primary Level	
<ul style="list-style-type: none"> • Nurses • Auxiliary health workers including: <ul style="list-style-type: none"> — Auxiliary nurse-midwives — Health assistants — Aides 	<p>All community-level activities plus:</p> <ul style="list-style-type: none"> • Simple physical and pelvic examination, especially taking vital signs and determining uterine size • Diagnosis of stages of abortion • Resuscitation and preparation for treatment or transfer, including: <ul style="list-style-type: none"> — Management of airway and respiration — Control of bleeding — Pain control — Hematocrit/hemoglobin test — Referral
<p><i>At some primary-level facilities staff may include:</i></p> <ul style="list-style-type: none"> • Trained midwives • General practitioners • Medical residents 	<p><i>When trained staff and appropriate equipment are available, activities can include:</i></p> <ul style="list-style-type: none"> • Initiation of antibiotic therapy, intravenous fluid replacement, and oxytocics • Uterine evacuation (first trimester) • Pain control including paracervical block, simple analgesia, and sedation
First Referral Level (District Hospital)	
<p>All those listed for the primary level plus:</p> <ul style="list-style-type: none"> • Trained midwives • Medical residents • General practitioners • Physicians with training in obstetrics/gynecology 	<p>All primary-level activities plus:</p> <ul style="list-style-type: none"> • Uterine evacuation for first and second trimester • Treatment of most complications including surgical treatment of sepsis • Blood replacement, including cross-matching (testing the compatibility of the donor and patient blood types) and transfusion • Local and general anesthesia • Laparotomy and indicated surgery for uterine perforations and associated injuries • Diagnosis of pregnancy • Diagnosis and referral of severe complications such as septicemia, peritonitis, or renal failure
Secondary and Tertiary Level (Regional, National, or Teaching Hospital)	
<p>All those listed for the primary and first referral levels plus:</p> <ul style="list-style-type: none"> • Specialists in obstetrics, gynecology, and other relevant fields 	<p>All activities listed above plus:</p> <ul style="list-style-type: none"> • Uterine evacuation for all abortions • Treatment of bleeding/clotting disorders • Treatment of severe complications such as septicemia, septic shock, renal failure, bowel injury, tetanus, and gas gangrene, including: <ul style="list-style-type: none"> — Diagnostic X-ray — Ultrasonography — Laparoscopy — Laparotomy including hysterectomy

Source: Adapted from Winkler et al. 1995 (277), WHO 1995 (282), and WHO 1994 (293)

Facilities Needed:	Equipment and Supplies Required:	Family Planning Services Offered:
Community Level		
Usually none at this level. Good communication with primary health facility is essential.	If available: <ul style="list-style-type: none"> • Health education materials (client brochures, leaflets) • Counseling materials (cue cards, brochures, flipchart) 	<ul style="list-style-type: none"> • Counseling and education • Condoms • Spermicides • Oral contraceptives • Referral and follow-up for these and other methods
Primary Level		
<ul style="list-style-type: none"> • Outpatient treatment room or area • Side laboratory • Family planning clinic 	Those listed for the community level plus: <ul style="list-style-type: none"> • Examination couch/table • Gloves, protective clothing • Vaginal specula • Soap/disinfectants • Emergency resuscitation kit • Essential drugs • Side laboratory equipment • Transport vehicle or standing arrangements for transport 	All community-level services plus: <ul style="list-style-type: none"> • Injectables • IUDs • <i>Norplant</i>® implants, where available • Referral for voluntary sterilization • Follow-up
<i>If antibiotics, uterine evacuation, or pain control is offered:</i>		
<ul style="list-style-type: none"> • Separate room or private corner of treatment room 	<ul style="list-style-type: none"> • Broad-spectrum antibiotics • Uterine evacuation kits—MVA or sharp cutterage • Means of sterilizing equipment • Local anesthesia • Sedatives • Analgesics • Needles and syringes 	
First Referral Level (District Hospital)		
<ul style="list-style-type: none"> • Treatment room in outpatient area, emergency ward, or gynecology ward • Recovery area • Laboratory • Surgical room 	All those listed above plus: <ul style="list-style-type: none"> • Sufficient uterine evacuation kits for caseload • Laboratory equipment and reagents for microscopy, culture, and basic hematology • Blood or blood substitutes • Blood collection, transfusion, and storage equipment • Anesthesia, local and general • Standard laparotomy set • Pregnancy tests • Ambulance 	All those listed above plus: <ul style="list-style-type: none"> • Voluntary sterilization
Secondary and Tertiary Level		
All those listed above plus: <ul style="list-style-type: none"> • 24-hour access to surgical room • More complete laboratory • Intensive care unit • Shielded X-ray room • Blood bank 	All those listed for above plus: <ul style="list-style-type: none"> • Intensive care equipment • X-ray equipment • Sonography equipment • Laparoscope 	All those listed above

understand the importance of prompt referral to a medical provider, traditional healers or birth attendants can become the first, crucial link in the referral network. Particularly in remote areas, traditional or community health workers are often the first people that women turn to when suffering postabortion complications (255, 282). Community health workers who are trained to identify potential medical emergencies and arrange transport to another facility can make a critical difference in helping women to reach care in time (255, 293). Community health workers also can develop community awareness of the dangers of unsafe abortion and educate women about using family planning—important preventive strategies.

The effectiveness of a focus on recognizing complications and referring women for care, especially in rural areas, has been demonstrated in general obstetric referral systems that seek to reduce maternal deaths from all causes (28, 69). In a rural district in Pakistan, for example, a community-based program that trained traditional birth attendants to recognize obstetric complications and refer women promptly for care reduced maternal mortality from all causes by 80% over a 10-year period (28).

Health clinics and other primary care facilities. Primary care facilities include first-aid stations, nursing posts, dispensaries, family planning clinics, and health clinics. Primary care providers—the first level of the formal health care system—usually offer health education and basic medical treatments and perform basic laboratory tests. In an effective referral system, primary-level providers can recognize postabortion complications quickly and distinguish between the cases they can treat and those they must refer.

When primary-level providers are unable to provide necessary medical treatment for abortion complications—either because they lack the skills, equipment, or drugs or because the complication is severe—they quickly refer the woman to a facility where treatment is available (87, 99, 112). When they have the training and supplies, primary-level providers can stabilize the woman's condition and prepare her for transfer to another facility, beginning antibiotic therapy, fluid replacement, or basic pain control and sedation (251, 282, 289, 293). Also, if providers know which methods of unsafe abortion are commonly used in their area, they can

be better prepared to recognize and treat the likely complications (232).

When the staff includes an appropriately trained provider, postabortion care at the primary level can include first-trimester (MVA) (186, 282). Often, no new medical facilities or staff are needed to provide emergency postabortion care at this level. Many clinics adding postabortion care, however, will need to acquire MVA equipment, and in most cases additional staff training will be required.

District hospitals—the first referral level. Women who need medical treatment that the primary health care center cannot provide are transferred to a first-referral hospital. These are district hospitals that provide inpatient services and have 20 or more beds. District hospitals should provide general emergency services and have staff, including at least one physician, available 24 hours a day. Staff at this level also are expected to be able to diagnose major complications, such as septicemia, peritonitis, and renal failure, and to refer women to another facility where treatment is available (see Table 3, pp. 24–25).

Most district hospitals *should* already have the facilities, equipment, and staff needed to provide life-saving surgical and medical procedures for all but the most serious abortion complications (293). The reality in many developing countries, however, is that most do not (175). To improve postabortion care, most will need to improve general emer-

gency care practices, as well as to train personnel and acquire MVA equipment and supplies (282).

Regional, national, and university hospitals: secondary and tertiary levels. Regional hospitals that provide inpatient and outpatient services are considered secondary-level facilities, while university teaching hospitals and specialized national hospitals are tertiary-level hospitals. Because regional and national hospitals provide specialized surgical services in addition to all the services of the district hospitals, most *should* already have the facilities and equipment needed to provide good-quality postabortion care for all abortion complications, including the most severe (293). To improve postabortion care, however, they too may need to train personnel and to acquire MVA equipment (see Table 3).

Managing severe complications. Women with severe complications or whose pregnancy was second-trimester often need intravenous fluid replacement, large doses of antibiotics, and diagnostic services that are not available at lower levels of the health system (293). Some may need a blood transfusion, laparotomy, or hysterectomy (72, 154, 250, 282). While these procedures for treating severe complications *should* be available at national and university hospitals, as well as some regional and district hospitals, they often are unavailable. Planners of postabortion care strategies must ensure that specialized, higher-level care is available for women suffering severe complications. In some settings a postabortion care strategy may need to focus on improving

What Can Be Done?

Individual advocates for women's health can:

- Make a commitment to address unsafe abortion and act on that commitment;
- Describe the problem of unsafe abortion in their area accurately and consistently, tailoring their approach to the audience addressed;
- Work with women's groups;
- Support their advocacy with international statements that call for improved postabortion care, such as the Cairo Program of Action (see box, p. 7).

Local civic and religious leaders can:

- Educate the public, political leaders, health authorities, and community leaders about unsafe abortion and its consequences;
- Form coalitions among themselves and with health officials;
- Establish relationships with the news media to publicize the problem;
- Urge understanding for women who have undergone unsafe abortions.

Community health care providers and traditional birth attendants can:

- Learn to recognize abortion complications, know how and where to refer women for emergency care, make referrals quickly;

- Obtain training in postabortion care, including manual vacuum aspiration (MVA), where available;

- Ensure that equipment, drugs, and supplies are on hand to treat complications;
- Maintain communication and transportation systems with district-level hospitals to ensure prompt referral and transport for women with serious complications.

Within their clinics and hospitals, managers and hospital directors can:

- Establish a protocol for quickly and effectively treating postabortion complications;
- Switch from general to local anesthesia, adopt MVA for early uterine evacuation;
- Designate or create a treatment room exclusively for postabortion care;
- Make clear to staff that providing family planning is an essential part of postabortion care and is a regular staff responsibility, not an extra or optional activity;
- Demonstrate respectful interactions with women treated for abortion complications and make clear that all staff are expected to behave respectfully;
- Monitor quality of services through on-going supervision;

- Train providers in postabortion care—both clinical aspects, including MVA, and psychosocial aspects;

- Make sure that family planning training is part of all training in postabortion care;

- See that all staff are appropriately trained and new staff members are trained as they arrive;

- Provide trainees with printed educational materials;

- Supervise and monitor the care and counseling that trainees provide;

- Organize seminars where staff can discuss their feelings about postabortion care;

- Hold update sessions to address special concerns such as adolescent patients or HIV infection;

- Use training and references manuals available from the World Health Organization and others (see box, p. 12);

- Emphasize the need to provide supportive counseling during treatment;

- Ensure that trained counselors are available for all women and that backup personnel are available when needed;

- Provide family planning counseling and services to all women treated for abortion complications, and offer reproduc-

care at the top health care institutions before expanding care to lower levels of the health care system.

Making the Referral System Work

For the postabortion care referral system to function smoothly, managers determine locally which complications can be treated at each health care facility and which must be referred (282). Also, staff at each level know where to refer women when they need more specialized care (186). Once established, the referral system and treatment protocols are made known to all emergency care providers to eliminate confusion about their roles and to avoid delays.

Where referral networks aimed at reducing maternal mortality already exist, through Safe Motherhood projects or similar efforts, postabortion care and referral can be added to the network. In many settings improved postabortion care can be developed as part of an overall strategy to improve emergency obstetric care. By linking postabortion care to other reproductive health services, health systems can take advantage of existing services rather than create a new, vertical service. Integrating postabortion services with existing emergency or obstetric services can be an effective way to provide needed care with minimal added costs. In Ghana, for example, a project is underway to train 40 midwives and the physicians who back them up to provide MVA as well as family planning counseling and services as part of an overall

strategy aimed at reducing maternal deaths and expanding care to the primary level (36).

Maintaining links between levels. Arranging reliable communication among and transportation to medical facilities is crucial to making the postabortion referral system work (186, 293). Improving and formalizing communication and transportation between levels of the health care system is important to improving care for *all* obstetric complications, as well as all other medical emergencies. Again, strategies aimed at improving postabortion can be part of a larger initiative to improve emergency care.

Making arrangements may be challenging at the primary level, especially in rural areas. District hospitals *should* have established systems of radio or telephone communication with regional hospitals, but, again, many do not. At all health care levels, where ambulances are available, they must be kept in running order. If none is available, making formal arrangements with community members or businesses who own vehicles is another way to make sure that women can reach appropriate care in time (293).

Expanding and Decentralizing Postabortion Care

Combined with an effective referral system, decentralizing postabortion care can help prevent many deaths from unsafe abortion. For example, in Nicaragua, after a successful pilot

tive health care that responds to women's needs;

- Ensure that counselors are capable of establishing rapport and helping women to discuss their family planning goals and needs.

Family planning managers can:

- Send family planning staff to emergency wards provide postabortion family planning counseling and services;
- Inform staff about how unsafe abortion causes substantial maternal mortality and how postabortion family planning can save women's lives;
- Show respect for women receiving care for abortion complications and avoid passing judgment on them;
- Provide opportunities for staff to discuss postabortion care and their feelings about abortion.

At the regional level, health officials and community leaders can:

- Decentralize postabortion care to district hospitals by providing training and equipment for postabortion care;
- Conduct educational events for local advocates, publicly support and encourage local efforts, and maintain contact with local advocates;
- Organize conferences to share data about the extent of unsafe abortion, its role in maternal mortality, and costs to area hospitals and clinics;

- Conduct seminars and workshops to improve the efficiency of referral and transport between levels of care.

At the national level, health officials and directors of training hospitals can:

- Establish a postabortion care strategy and a referral system, train local staff to recognize postabortion complications, and assure transport for women needing care;
- Provide training in postabortion care, including MVA, to physicians, nurses, midwives in both the public and private sectors where appropriate; arrange for supervision and ongoing training so that they maintain their skills, and assure high-quality training in sharp curettage where MVA is not available;
- Decentralize postabortion care to district hospitals and primary health care centers and train providers at those levels;
- Include postabortion care kits and necessary supplies on national medical supply purchase lists and ensure that supplies are distributed throughout all levels of the health care system;
- Make sure training in postabortion care is required in preservice training curricula for doctors and other health professionals;
- Encourage and conduct research and disseminate findings, include ques-

tions on abortion in health surveys and other research. When postabortion programs are started, conduct needs assessments and operations research to learn the most effective ways to introduce postabortion care and family planning;

- Educate government officials and donor agencies about the problem.

Donor agencies can:

- Encourage and fund research on unsafe abortion, including operations research on effective ways to introduce and improve postabortion care and family planning;
- Provide equipment and supplies for postabortion care;
- Fund technical assistance and training for postabortion care projects;
- Provide contraceptive supplies and necessary equipment for postabortion family planning programs;
- Increase in-country capacity to undertake training, service delivery, and health systems research;
- Encourage international collaboration by providing a forum in which advocates working to improve postabortion care can share experiences.

Adapted from Benson et al. 1996 (32), McLaurin et al. 1996 (187), McKay & Hartley 1993 (184), and WHO 1995 (282).

project at a tertiary-level hospital in 1989, postabortion MVA training was expanded to providers from other levels as well, including other hospitals and rural health centers where trained staff and appropriate equipment are available. Since the introduction of MVA, abortion-related deaths have dropped from being the leading cause of maternal mortality to fourth, according to one report (117).

After postabortion care including MVA has been successfully introduced at a national or teaching hospital, services can be expanded to additional hospitals and lower-level health facilities. For example, in Egypt, where postabortion MVA was successfully introduced at two major hospitals in 1994 and 1995, training is now being expanded to 10 more teaching hospitals (248). In Kenya, where postabortion MVA services currently are available at the national, tertiary-level hospital and 13 secondary-level hospitals, the Ministry of Health favors making MVA available at all secondary-level hospitals (160).

In many developing countries district hospitals need particular attention as part of an overall strategy for improving postabortion care. Because most women suffering abortion complications are taken to these smaller hospitals first, district hospitals often treat the broadest range of postabortion complications. Yet overcrowding and long delays are common, and staff or supplies often are not available to treat emergencies (175).

To address these problems, a postabortion care strategy expands training to practitioners at the district level, including nurses and midwives (186). This practice increases the number of trained providers available to treat postabortion complications and frees doctors for more complicated surgical treatments (282). This can help ensure that trained staff are available at all times to treat abortion complications and reduce delays in care. For example, in Tanzania, where postabortion care is available at seven tertiary-level training

hospitals, nurses from hospitals at all levels, including the district level, participated in a pilot training program for postabortion care and family planning (119). In Brazil training in postabortion care has started at seven public hospitals (113), and in Ethiopia plans include expanding training in postabortion MVA to 25 smaller hospitals (115).

Also, in some countries pilot projects are underway to compare various approaches to decentralizing postabortion care with MVA to the primary level. In Nicaragua, postabortion MVA services are provided at small health centers that are staffed by physicians (117). Projects in Bolivia, Nigeria, Turkey, and other countries are decentralizing postabortion care and family planning services by training private physicians, midwives, and other primary-level care providers (98, 112, 118, 160). In Egypt and Kenya, the Population Council and Ipas are collaborating on operations research projects to compare the effectiveness of various approaches to decentralization (242, 248).

Taking Action, Saving Lives

In most developing countries, planning and implementing a postabortion care strategy will be an enormous challenge. Improving postabortion care requires commitment and support from leaders in health care, the national government, and communities. In most countries the magnitude of abortion-related mortality and the need to improve postabortion care have only recently been recognized and acknowledged. Much remains to be done to improve postabortion care and thus to save women's lives.

An effective postabortion care strategy starts immediately, making the improvements in care that are most feasible and most appropriate for each particular setting. Many steps are necessary to achieve high-quality postabortion care, but in every setting some steps can be taken right away.

Bibliography

An asterisk (*) denotes an item that was particularly useful in the preparation of this issue of *Population Reports*.

1. ABDEL-TAWAB, N., HUNTINGTON, D., and NAWAR, L. Husband's role in postabortion care. Presented at the 124th Annual Meeting of the American Public Health Association, New York, Nov. 17-21, 1996.
2. ABERNATHY, M., AQUINO, S., AQUINO, J., and CHAPARRO, J.C. Results of a pilot project to improve postabortion care in Paraguay: Evaluating costs and quality of care. Poster presentation at the 124th Annual Meeting of the American Public Health Association, New York, Nov. 17-21, 1996.
3. ABERNATHY, M., RANCE, S., HERNÁNDEZ, C., MASSARDO, M., OSES, J., and CELIS, R. Women's and providers' views on abortion care in Bolivia and Chile. Presented at the 122nd Annual Meeting of the American Public Health Association, Washington, D.C., Nov. 1994, 10 p.
4. ABOUZAHR, C. and ROYSTON, E. Maternal mortality: A global factbook. Geneva, World Health Organization, 1991. 606 p.
5. ABRAMS, M. Birth control use by teenagers: One and two years postabortion. *Journal of Adolescent Health Care* 6(3): 196-200. May 1985.
6. ADETORO, O.O. Septic induced abortion at Ilorin, Nigeria: An increasing gynaecological problem in the developing countries. *Asia-Oceania Journal of Obstetrics and Gynaecology* 12(2): 201-105. Jun. 1986.
7. ADETORO, O.O., BABARINSA, A.B., and SOTILOVE, O.S. Socio-cultural factors in adolescent septic illicit abortions in Ilorin, Nigeria. *African Journal of Medicine and Medical Sciences* 20(2): 149-153. Jun. 1991.
8. ADEWOLE, I.F. Trends in postabortal mortality and morbidity in Ibadan, Nigeria. *International Journal of Gynecology and Obstetrics* 38(2): 115-118. Jun. 1992.
9. AGGARWAL, V.P. Septic abortion: Management and prevention. In: Mati, J.K.G., Ladipo, O.A., Burkman, R.T., Magarick, R.H., and Huber, D., eds. *Reproductive health in Africa*. Baltimore, JHPIEGO, 1984. p. 204-208.
10. AGGARWAL, V.P. and MATI, J.K.G. Epidemiology of induced abortion in Nairobi, Kenya. *Journal of Obstetrics and Gynaecology of Eastern and Central Africa* 1: 54-57. 1982.
11. ALAN GUTTMACHER INSTITUTE (AGI). *Clandestine abortion: A Latin American reality*. New York, AGI, 1994. 28 p.
12. ALAN GUTTMACHER INSTITUTE (AGI). *Sex and America's teenagers*. New York, AGI, 1994. 88 p.
13. ALAN GUTTMACHER INSTITUTE (AGI). *Women, families and the future*. New York, AGI, 1994. 6 p.
14. ALI, Y. Analysis of maternal deaths in Jima Hospital, southwestern Ethiopia. *Ethiopian Medical Journal* 32(2): 125-129. Apr. 1994.
15. AMPOFO, D.A., COLLISON, A.H.K., RICHARDSON, D., KWOFIE, G., and SENAH, K.A. Contraceptives cause infertility: Determinants of decision-making factors in women with knowledge of contraception who resort to induced abortion. Accra, University of Ghana Medical School, Jun. 1993.
16. ANDERSON, B.A., KATUS, K., PUUR, A., and SILVER, B.D. Characteristics of women having abortions in Estonia. In: *International Union for the Scientific Study of Population (IUSSP), compiler. International Population Conference/Congress International de la Population*, Montreal 1993, 24 Aug.-1st Sep. Vol. 1. Liege, Belgium, IUSSP, 1993. p. 215-234.
17. ARCHIBONG, E.I. Illegal induced abortion—A continuing problem in Nigeria. *International Journal of Gynecology and Obstetrics* 34(3): 261-265. Mar. 1991.
18. AUSTE, C.V., BARCELONA, D.R., DESPABILADERAS, C.C., DESPABILADERAS, E.E., MENDOZA, T.L., MORALES, L.P., and TOLEDO, V.S. Interpersonal communication: A trainer's manual. Manila, Commission on Population, 1987. 170 p.
19. AVSC INTERNATIONAL (AVSC). *Family planning counseling: A curriculum prototype. trainer's manual and participant's handbook*. New York, AVSC, 1995.
20. AVSC INTERNATIONAL (AVSC). *Postabortion women. [2/92 material]*. In: *Family planning counseling: A curriculum prototype*. New York, AVSC, 1995. p. 67-68.
21. AVSC INTERNATIONAL (AVSC). *Talking with clients about family planning: A guide for health care providers*. New York, AVSC, 1995. 111 p.
22. BAILEY, P.E., LLANO SAAVEDRA, L., KUSHNER, L., WELSH, M., and JANOWITZ, B. A hospital study of illegal abortion in Bolivia. *Bulletin of the Pan American Health Organization* 22(1): 27-41. 1988.
23. BAKER, J. and KHASIANI, S. Induced abortion in Kenya: Case histories. *Studies in Family Planning* 23(1): 34-44. Jan.-Feb. 1992.
24. BARKER, G. Adolescent fertility in sub-Saharan Africa: Strategies for a new generation. Washington, D.C., Center for Population Options, Mar. 1992. 37 p.
25. BARKER, G.K. and RICH, S. Influences on adolescent sexuality in Nigeria and Kenya: Findings from recent focus-group discussions. *Studies in Family Planning* 23(3): 199-210. May-Jun. 1992.
26. BARNETT, B. Family planning reduces mortality. *Network* 14(3): 4-7. Feb. 1994.
27. BARRETO, T., CAMPBELL, O.M.R., DAVIES, J.L., FAUVEAU, V., FILIPPI, V.G.A., GRAHAM, W.J., MAMDANI, M., ROONEY, C.I.F., and TOUBIA, N.F. Investigating induced abortion in developing countries: Methods and problems. *Studies in Family Planning* 23(3): 159-170. May-Jun. 1992.
28. BASHIR, A. Maternal mortality in Pakistan. A success story of the Faisalabad district. *IPPF Medical Bulletin* 25(2): 1-3. Apr. 1991.
29. BEGUM, S.F., AKHTER, H.H., KAMAL, H., and KAMAL, G.M. Hospital-based mortality and morbidity related to induced abortion. *Bangladesh Institute of Research for Promotion of Essential and Reproductive Health and Technologies News and Views* 5(2): 7-11. Sep. 1993.
30. BELANGER, E., MELZACK, R., and LAUZON, P. Pain of first-trimester abortion: A study of psychosocial and medical predictors. *Pain* 36(3): 339-350. Mar. 1989.
31. BELTRAN, L.R. (Population Communication Services) [Recent events in Bolivia] Personal communication, Oct. 17, 1996.
32. BENSON, J., GRINGLE, R., and WINKLER, J. Preventing unwanted pregnancy: Management strategies to improve postabortion care. *Ipas Advances in Abortion Care* 5(1): 1-8. 1996.
33. BENSON, J., LEONARD, A.H., WINKLER, J., WOLF, M., and MCCLARIN, K.E. Meeting women's needs for post-abortion family planning: Framing the questions. *Carboro, North Carolina, Ipas, 1992. [Issues in Abortion Care 2] 77 p.*
34. BENSON, J., NICHOLSON, L.A., GAFFIKIN, L., and KINOTI, S.N. Complications of unsafe abortion in sub-Saharan Africa: A review. *Health Policy and Planning* 11(2): 117-131. 1996.
35. BHATIA, J.C. and CLELAND, J. Self-reported symptoms of gynecological morbidity and their treatment in south India. *Studies in Family Planning* 26(4): 203-216. Jul.-Aug. 1995.

36. BILLINGS, D.L., NTOW, S., OFFEI, A., and ABBEY, M. Training non-physician providers to improve postabortion care: Baseline assessment of postabortion care services in four districts of Eastern Region, Ghana. *Carboro, North Carolina, Ipas*, 1997.
37. BLEDSOE, C.H. and COHEN, B., eds. Social dynamics of adolescent fertility in sub-Saharan Africa. Washington, D.C., National Academy Press, 1993. 223 p.
38. BLUMENTHAL, P.D. and REMSBURG, R.E. A time and cost analysis of the management of incomplete abortion with manual vacuum aspiration. *International Journal of Gynaecology and Obstetrics* 45(3): 261-267. Jun. 1994.
39. BRABIN, L., KEMP, J., OBUNGE, O.K., IKIMALO, J., DOLIMORE, N., ODU, N.N., HART, C.A., and BRIGGS, N.D. Reproductive tract infections and abortion among adolescent girls in rural Nigeria. *Lancet* 345(8945): 270-271. Feb. 4, 1995.
40. BRADLEY, J., ROGO, K., JOHNSON, R., OKOKO, L., HEALY, J., and BENSON, J. A comparison of the costs of manual vacuum aspiration (MVA) and evacuation and curettage (E&C) in the treatment of early incomplete abortions in Kenya. *Journal of Obstetrics and Gynaecology of Eastern and Central Africa* 11: 12-19. 1993.
41. BRADLEY, J., SIKAZWE, N., and HEALY, J. Improving abortion care in Zambia. *Studies in Family Planning* 22(6): 391-394. Nov-Dec. 1991.
42. BRUYNIKS, N.P. Reproductive health in central and eastern Europe: Priorities and needs. *Patient Education and Counseling* 23(3): 203-215. Jul. 1994.
43. BULUT, A. and TOUBIA, N. Efficiency and effectiveness of public sector abortion services in Istanbul and their suitability to women's needs. Istanbul, Turkey, and New York, University of Istanbul, and Population Council, 1994. 21 p. (Mimeo)
44. BURTON, N.N. Data collection on hospitalized incomplete abortions in Mali and Zaire. [1985]. 10 p. (Unpublished)
45. CARDONA PEREZ, J.A. El programa nacional de atención postaborto en el IMSS. [The national postabortion care program in the IMSS.] SPAN Presented at the Strategies for Addressing Postabortion Care in Mexico meeting, Mexico City, Feb. 1996.
46. CASTLE, M.A., LIKWA, R., and WHITTAKER, M. Observations on abortion in Zambia. *Studies in Family Planning* 21(4): 231-235. Jul.-Aug. 1990.
47. CHANDRASEKHAR, S. India's abortion experience. Denton Texas, University of North Texas Press, 1994. (Philosophy and the Environment Series No. 4) 263 p.
48. CHAUDHURI, S.K. Pregnancy termination. In: *Practice of fertility control: A comprehensive text book*. (3rd ed.) New Delhi, B.T. Churchill Livingstone, 1992. p. 197-228.
49. COEYTAUX, F. Abortion: the ultimate unmet need. In: Senanayake, P. and Kleinman, R.L., eds. *Family planning. Meeting choices: Promoting choices. The proceedings of the IPPF Family Planning Congress*, New Delhi, Oct. 1992. Carnforth, England, Parthenon Publishing Group, 1993. p. 701-708.
50. CONTRACEPTION REPORT. Contraception and adolescents: Highlights from the NASPAG conference. *Contraception Report* 6(3): 4-11. 14. Jul. 1995.
51. CORVALAN, H. The abortion epidemic. In: Potts, M. and Bhiwandwala, P., eds. *Birth control: An international assessment*. Baltimore, University Park Press, 1979. p. 201-214.
52. CROWTHER, C.A. Eclampsia at Harare Maternity Hospital: An epidemiological study. *South African Medical Journal* 68(13): 927-929. Dec. 21, 1985.
53. CROWTHER, C.A. Management and pregnancy outcome in eclampsia at Harare Maternity Hospital. *Central African Journal of Medicine* 31(6): 107-109. Jun. 1985.
54. DARNEY, P.D. Maternal deaths in the less developed world: Preventable tragedies. *International Journal of Gynecology and Obstetrics* 26(2): 177-179. Apr. 1988.
55. DATTA, K.K., SHARMA, R. S., RAZACK, P.M.A., GHOSH, T.K., and ARORA, R.R. Morbidity pattern amongst rural pregnant women in Alwar, Rajasthan—A cohort study. *Health and Population—Perspective & Issues* 3(4): 282-292. Oct.-Dec. 1980.
56. DAVID, H.P. Abortion in Europe, 1920-91: A public health perspective. *Studies in Family Planning* 23(1): 1-22. Jan.-Feb. 1992.
57. DAVID, H.P. Abortion: Its prevalence, correlates, and costs. In: Bulatao, R.A. and Lee, R.D., eds. *Determinants of Fertility in Developing Countries*. Vol. 2: Fertility regulation and institutional influences. New York, Academic Press, 1983. (Studies in Population) p. 193-244.
58. DEFENSE FOR CHILDREN INTERNATIONAL-USA (DCI). The effects of maternal mortality on children in Africa: An exploratory report on Kenya, Namibia, Tanzania, Zambia and Zimbabwe. New York, DCI, 1991. 226 p.
59. DEMAAYER, E. and ADIELS-TEGMAN, M. The prevalence of anaemia in the world. [ENG, FRE] *World Health Statistics Quarterly* 38(3): 302-316. 1985.
60. DEWART, T. Reproductive risks. Guatemala. Links. *Health and Development Report* 9(2): 13. 25. Spring 1992.
61. DJOHAN, E., INDRAWASIH, R., ADENAN, M., YUDOMUS-TOPO, H., and TAN, M.G. The attitudes of health providers towards abortion in Indonesia. *Reproductive Health Matters* 2: 32-40. Nov. 1993.
62. EGYPTIAN FERTILITY CARE SOCIETY (EFCs). Postabortion case load study in Egyptian public sector hospitals: Final report. Cairo, EFCs, Feb. 1997. 30.
63. EKWEMPU, C.C. Uterine aspiration using the Karman cannula and syringe. *Tropical Journal of Obstetrics and Gynaecology* 8N2: 37-38. 1990.
64. EKWEMPU, C.C., GIWA-OSAGIE, O.F., and OGEDENGBE, O.K. Clinical treatment needs and family planning use among women treated for incomplete abortion in teaching hospitals in Nigeria. Presented at the 1991 Annual Conference of the Society of Obstetrics and Gynaecology of Nigeria (SOGON), Lagos, Nigeria, Sep. 5-7, 1991. 9 p.
65. EL KABARITY, H., LOUZ, S.A., EL-ETRIABI, A., YEHYA, M., and ELLIAN, A. Suction abortion versus traditional evacuation in the management of incomplete inevitable abortions. Presented at the International College of Surgeons, Fifth African Federation Congress, Cairo, Nov. 25-28, 1985.
66. EMUVEYAN, F. Profile of abortion in Nigeria. Presented at the Conference on Unsafe Abortion and Post Abortion Family Planning in Africa, Mauritius, Mar. 24-28, 1994. 17 p.
67. FATHALLA, M.F. The long road to maternal death. *People* 14: 8-9. 1987.
68. FAUVEAU, V. and BLANCHET, T. Deaths from injuries and induced abortion among rural Bangladeshi women. *Social Science and Medicine* 29(9): 1121-1127. 1989.
69. FAUVEAU, V., STEWART, K., KHAN, S.A., and CHAKRABORTY, J. Effect on mortality of community-based maternity-care programme in rural Bangladesh. *Lancet* 338(8776): 1183-1186. Nov. 9, 1991.
70. FERGUSON, A. School girl pregnancy in Kenya: Report of a study of discontinuation rates and associated factors. 2nd ed. [Nairobi], Kenya, Ministry of Health, Division of Family Health, GTZ Support Unit, Mar. 1988. 74 p.
71. FIGA-TALAMANCA, I., SINNATHURAY, T.A., YUSOF, K., et al. Illegal abortion: An attempt to assess its cost to the health services and its incidence in the community. *International Journal of Health Services* 16(3): 375-389. 1986.
72. FIGUEROA DAMIAN, R. and ARREDONDO GARCIA, J.L. Conceptos actuales en la patogenia y tratamiento del aborto y el choque septico. 1: Epidemiologia, patogenia y manejo del aborto septico. [Current concepts in pathogenesis and treatment of abortion and septic shock. 1: Epidemiology, pathogenesis and management of septic abortion.] SPAN *Ginecologia y Obstetricia de Mexico* 61: 305-310. 1993.
73. FORTNEY, J.A. The importance of family planning in reducing maternal mortality. *Studies in Family Planning* 18(2): 109-114. 1987.
74. FORTNEY, J.A. and KIRAGU, K. Maternal mortality and morbidity in sub-Saharan Africa. Research Triangle Park, North Carolina, Family Health International, Sep. 1995. (Working Papers No. 95-03) 50 p.
75. FORTNEY, J.A. and SMITH, J.B. The base of the iceberg: Prevalence and perceptions of maternal morbidity in four developing countries: The maternal morbidity network. Research Triangle Park, North Carolina, Family Health International. Maternal and Neonatal Health Center, Dec. 1996. 111 p.
76. FORTNEY, J.A., SUSANTI, I., GADALLA, S., SALEH, S., FELD-BLUM, P.J., and POTTS, M. Maternal mortality in Indonesia and Egypt. *International Journal of Gynaecology and Obstetrics* 26(1): 21-32. Feb. 1988.
77. FREIJA, T. Induced abortion and fertility. *Family Planning Perspectives* 17(5): 230-234. Sep.-Oct. 1985.
78. FREIJA, T., ATKIN, L.C., and TORO, O.L. Program document: Research program for the prevention of unsafe induced abortion and its adverse consequences in Latin America and the Caribbean. Center for Policy Studies. Mexico City, Population Council, 1989. (Working Paper No. 3)
79. GALLAN, M., LETTENMAIER, C., and GREEN, C.P. Counseling makes a difference. *Population Reports, Series J*, No. 35. Baltimore, Johns Hopkins School of Public Health, Population Information Program, Nov. 1987. 32 p.
80. GHORBANI, F.S. Iran: The family planning challenge. *Lancet* 340(8832): 1401. Dec. 5, 1992.
81. GÓMEZ SÁNCHEZ, P., RUIZ, N., and PULIDO, J. Mortalidad materna en el Instituto Materno Infantil de Santafé de Bogotá D.C. 1985-1989. [Maternal mortality in the Instituto Materno Infantil de Santafé de Bogotá, 1985-1989.] SPAN *44(11)*: 30-47. Jan.-Mar. 1993.
82. GOODKIND, D. Abortion in Vietnam: Measurements, puzzles, and concerns. *Studies in Family Planning* 25(6, Pt. 1): 342-352. Nov.-Dec. 1994.
83. GORBACH, P.M., HOA, D.T., TSUI, A., and NHAN, V.Q. Abortion and family planning in two northern communes of Vietnam. Presented at the annual meeting of the Population Association of America, New Orleans, Louisiana, May 8-11, 1996. 20 p.
84. GÖRGEN, R., MAIER, B., and DIESELD, H.J. Problems related to schoolgirl pregnancies in Burkina Faso. *Studies in Family Planning* 24(5): 283-294. Sep.-Oct. 1993.
85. GREENSLADE, F.C., BENSON, J., WINKLER, J., HENDERSON, V., WOLF, M., and LEONARD, A. Summary of clinical and programmatic experience with manual vacuum aspiration. *Ipas Advances in Abortion Care* 3(2): 1-4. 1993.
86. GREENSLADE, F.C., LEONARD, A.H., BENSON, J., WINKLER, J., and HENDERSON, V.L. Manual vacuum aspiration: A summary of clinical and programmatic experience worldwide. *Carboro, North Carolina, Ipas*, 1993. 81 p.
87. GREENSLADE, F.C., MCKAY, H., WOLF, M., and MCLAURIN, K. Post-abortion care: A women's health initiative to combat unsafe abortion. *Ipas Advances in Abortion Care* 4(1): 1-4. 1994.
88. GREENSLADE, F.C., WINKLER, J., and LEONARD, A.H. Introduction of abortion technologies: A quality of care management approach. *Law, Medicine, and Health Care* 20(3): 161-168. Fall 1992.
89. GUZMAN, A., FERRANDO, D., and TUESTA, L. Treatment of incomplete abortion: Manual vacuum aspiration versus curettage in the maternal perinatal institute in Lima, Peru. Lima, Peru, Pathfinder International, Oct. 1995. 35 p.
90. GUZMAN, A., LAGOS, G., HERRERA, J., and FOREIT, J. Immediate post-partum and post abortion family planning program: Final report. Lima, Peru, PROFAMILIA, and Instituto Peruano de Seguridad Social, and Population Council, May 1990. 83 p.
91. GYEPÍ-GABRAB, B., NICHOLS, D.J., and KPEDEKPO, G.M.K. Adolescent fertility in sub-Saharan Africa: An overview. Boston, Pathfinder Fund, 1985. 57 p. (Mimeo)
92. HARDY, E. and HERUD, K. Effectiveness of a contraceptive education program for postabortion patients in Chile. *Studies in Family Planning* 6(7): 188-191. Jul. 1975.
93. HART, G. and MACHAPER, T. Clinical aspects of induced abortion in South Australia from 1970-1984. *Australia and New Zealand Journal of Obstetrics and Gynecology* 26: 219-224. 1986.
94. HENSHAW, S.K. Induced abortion: A world review, 1990. *Family Planning Perspectives* 22(2): 76-89. Mar.-Apr. 1990.
95. HENSHAW, S.K. and MORROW, E. Induced abortion: A world review. 1990 supplement. New York, Alan Guttmacher Institute, 1990. 120 p.
96. HERZ, B. and MEASHAM, A.R. The safe motherhood initiative: Proposals for action. Washington, D.C., World Bank, 1987. 56 p.
97. HIRSH, J.S. and BARKER, G. Adolescents and unsafe abortion in developing countries: A preventable tragedy. Washington, D.C., Center for Population Options, Mar. 1992. 69 p.
98. HORD, C. Evaluation of manual vacuum aspiration (MVA) training programs in Nigeria. Presented at the Ad Hoc Training Evaluation Meeting, Management Sciences for Health, Boston, Feb. 20-21, 1992. 14 p.
99. HORD, C.E. and DELANO, G.E. The midwife's role in abortion care. *Midwifery* 10(3): 136-141. Sep. 1994.
100. HUBER, D. (Pathfinder International) [Pathfinder's postabortion care projects in Africa and LA] Personal communication, May 14, 1996.
101. HULL, T.H., SARWONO, S.W., and WIDYANTORO, N. Induced abortion in Indonesia. *Studies in Family Planning* 24(4): 241-251. Jul.-Aug. 1993.
102. HUNTINGTON, D., DERVIOLU, A.A., PILE, J., BUMIN, C., and MENSCH, B. The quality of abortion services in Turkey. *International Journal of Gynecology and Obstetrics* 53: 41-49. Apr. 1996.
103. HUNTINGTON, D., HASSAN, E.O., TOUBIA, N., ATTALIAH, N., NAGUIB, M., and NAWAR, I. Improving the counseling and medical care of post abortion patients in Egypt. *Studies in Family Planning* 26(6): 350-362. Nov.-Dec. 1995.
104. HUNTINGTON, D., LETTENMAIER, C., and OBENG-QUADDOO, I. User's perspective of counseling training in Ghana: The "mystery client" trial. *Studies in Family Planning* 21(3): 171-177. May-Jun. 1990.
105. HUNTINGTON, D., MENSCH, B., and MILLER, V.C. Survey questions for the measurement of induced abortion. *Studies in Family Planning* 27(3): 155-161. May-Jun. 1996.
106. HUNTINGTON, D., NAWARE, L., and HADY, D.A. An exploratory study of the psycho-social stress associated with abortions in Egypt: Final report. Cairo, Population Council, Asia and Near East Operations Research and Technical Assistance Project, Dec. 1995. 34 p.
107. HUNTINGTON, D., NAWARE, L., and HADY, D.A. Women's perceptions of abortion in Egypt. *Reproductive Health Matters*. [Forthcoming, 1997]
108. HYHAZI, Y. and DIALLO, M.S. Association guinéenne pour le bien-être familial: Illegal or unsafe abortion in Guinea. Presented at the Conference on Unsafe Abortion and Post Abortion Family Planning in Africa, Mauritius, Mar. 24-28, 1994. 5 p.
109. INDIAN MEDICAL ASSOCIATION (IMA), and DEVELOPMENT ASSOCIATES (DA). FAMILY HEALTH TRAINING PROJECT. Homestay course in family planning: Module 10. Post-abortion care. [Calcutta, and Arlington, Virginia], IMA, and DA, 1994. 78 p.
110. INSTITUTE FOR DEVELOPMENT TRAINING. Treatment of complications of spontaneous or induced abortion. Training course in women's health. 2nd ed. Carboro, North Carolina, IDT, 1993. (Module 11)
111. INTERNATIONAL PLANNED PARENTHOOD FEDERATION, AFRICA REGION (IPPF/A). Unsafe abortion and post-abortion family planning in Africa. The Mauritius Conference. Nairobi, IPPF/A, 1994. 38 p.
112. IPAS. Ghana. *Ipas Africa Reports*, Sep. 1995. 3 p.
113. IPAS. Brazil. *Ipas Latin America Reports*, Sep. 1995. 2 p.
114. IPAS. A conceptual framework and program strategy for combating unsafe abortion. Nov. 1994. 17 p. (Unpublished)
115. IPAS. Ethiopia. *Ipas Africa Reports*, Sep. 1995. 2 p.
116. IPAS. MotherCare Project: Ghana. *Ipas Africa Reports*, Jan. 1996. 2 p.
117. IPAS. Nicaragua. *Ipas Latin America Reports*, Sep. 1995. 2 p.
118. IPAS. Nigeria. *Ipas Africa Reports*, Sep. 1995. 4 p.
119. IPAS. Tanzania. *Ipas Africa Reports*, Dec. 1995. 4 p.
120. ISKANDAR, M.B., UTOMO, B., HULL, T., DHARMAPUTRA, N.G., and AZWAR, Y. Unraveling the mysteries of maternal death in west Java: Reexamining the witnesses. Depok, Indonesia, Center for Health Research. Research Institute University of Indonesia, 1996. 147 p.
121. JACOBSON, J.L. Abortion and the global crisis in women's health. In: Mazur, L.A., ed. *Beyond the numbers: A reader on population, consumption, and the environment*. Washington, D.C., Island Press, 1994. p. 177-184.
122. JACOBSON, J.L. The global politics of abortion. Washington, D.C., Worldwatch, Jul. 1990. [Worldwatch Paper No. 97] 70 p.
123. JESANI, A. and IYER, A. Women and abortion. *Economic and Political Weekly* 28(48): 2591-2594. Nov. 27, 1993.
124. JHPIEGO CORPORATION. Postabortion care course handbook: Guide for participants. Baltimore, JHPIEGO, 1995.
125. JHPIEGO CORPORATION. Postabortion care trainer's notebook. Baltimore, JHPIEGO, 1995.
126. JOHNSON, B.R., BENSON, J., BRADLEY, J., and ORDÓÑEZ, A.R. Costs and resource utilization for the treatment of incomplete abortion in Kenya and Mexico. *Social Science and Medicine* 36(11): 1443-1453. 1993.
127. JOHNSON, B.R., BENSON, J., BRADLEY, J., ORDÓÑEZ, A.R., ZAMBRANO, C., OKOKO, L., CHAVEZ, I.V., QUIROZ, P., and ROGO, K. Costs of alternative treatments for incomplete abortion. Washington, D.C., World Bank, Jan. 1993. (Working Papers No. WPS1072) 31 p.
128. JOHNSON, B.R., BENSON, J., and HAWKINS, B.L. Reducing resource use and improving quality of care with MVA. *Advances in Abortion Care* 2(2): 1-6. 1992.

129. JOHNSON, B.R., HORG, M., and ANDRONACHE, L. Contraception and abortion in Romania. *Lancet* 341(8849): 875-878. Apr. 3, 1993.
130. JOHNSON, B.R., HORG, M., and ANDRONACHE, L. Women's perspective on abortion in Romania. *Social Science and Medicine* 42(4): 521-530. Sep.-Oct. 1996.
131. JONES, E.F., FORREST, J.D., HENSHAW, S.K., SILVERMAN, J., and TORRES, A. Pregnancy, contraception, and family planning services in industrialized countries. New Haven, Connecticut, Yale University Press, 1989. 276 p.
132. JUSTESSEN, A., KAPIGA, S.H., and VAN ASTEN, H.A.G.A. Abortions in a hospital setting: Hidden realities in Dar es Salaam, Tanzania. *Studies in Family Planning* 23(5): 325-329. Sep.-Oct. 1992.
133. KAMAU, R.K. Management of incomplete abortion: The role of manual vacuum aspiration. Presented at the Maternal and Perinatal Mortality Seminar, Mombasa, Kenya, Apr. 23-27, 1990. 10 p.
134. KAMAU, R.K. and ROGO, K.O. Kenyatta National Hospital personnel survey on the use of manual vacuum aspiration for treatment of incomplete abortion. [1991]. 25 p. (Unpublished)
135. KAMPIKAHO, A. and IRWIG, L.M. Incidence and causes of maternal mortality in five Kampala hospitals, 1980-1986. *East African Medical Journal* 68(8): 624-631. Aug. 1991.
136. KAMSIOUK, L. [Russian Family Planning Association.] [Notes and overviews] Presented at the Johns Hopkins Center for Communication Programs, Jun. 18, 1996.
137. KAU, M., AIRHIHIBUWA, C.O., and HELM, B. Sexual behavior and contraceptive use by adolescent pupils in the Republic of Botswana. *International Quarterly of Community Health Education* 9(1): 73-82. 1988-1989.
138. KAY, B.J., KATZENELLENBOGEN, J., FAWCUS, S., and KARIM, S.A. An analysis of the cost of induced incomplete abortion to the public health sector in South Africa—1994. 1994. 19 p. (Unpublished)
139. KELLER, S. When to begin postpartum methods. *Network* 15(3): 18-23. Mar. 1995.
140. KERRIGAN, M., GAFFIKIN, L., and MAGARICK, R. Postabortion care services in Uttar Pradesh State, India. *Baltimore, JHPHCO*, May 1995. 37 p.
141. KHATTAB, H.A.S. The silent endurance: Social conditions of women's reproductive health in rural Egypt. Amman, Jordan, and Giza, Egypt. UNICEF. Regional Office for the Middle East and North Africa, and Population Council. Regional Office for West Africa and North Africa, 1992. 71 p.
142. KIDULA, N.A., KAMAU, R.K., OJWANG, S.B., and MWATHE, E.G. A survey of the knowledge, attitude and practice of induced abortion among nurses in Kisii District, Kenya. *Journal of Obstetrics and Gynecology of Eastern and Central Africa* 10: 10. 1992.
143. KIM, Y.M. (JHU/CCP) [Discussion of draft chapter for "Assessing the quality of family counseling in Kenya: Interaction analysis."] Personal communication, Sep. 19, 1996.
144. KIM, Y.-M., RIMON, J., WINNARD, K., CORSO, C., MAKU, I.V., LAVAL, S., BABALOLA, S., and HUNTINGTON, D. Improving the quality of service delivery in Nigeria. *Studies in Family Planning* 23(2): 118-127. Mar.-Apr. 1992.
145. KINOTI, S.N., GAFFIKIN, L., BENSON, J., and NICHOLSON, L.A. Monograph on complications of unsafe abortion in Africa. Arusha, Tanzania, Commonwealth Regional Health Community Secretariat, 1995. 320 p.
146. KIZZA, A.P.M. and ROGO, K.O. Assessment of the manual vacuum aspiration (MVA) equipment in the management of incomplete abortion. *East African Medical Journal* 67(11): 812-821. 1990.
147. KOBLINSKY, M., CAMPBELL, O., and HARLOW, S. More than mothers. *Populi* 20(3): 13-17. Mar. 1993.
148. KOBLINSKY, M., TIMYAN, J., and GAY, J. The health of women: A global perspective. Boulder, Colorado, Westview Press, 1993.
149. KOETSAWANG, S. Induced abortion in Thailand. In: *International Planned Parenthood Federation. East and South East Asia and Oceania Region (IPPF/ESEAO). Country experiences on abortion: Malaysia, Singapore, Thailand, Indonesia, Philippines and Japan. Kuala Lumpur, Malaysia, IPPF/ESEAO*, 1994. p. 93-106.
150. KONJE, J.C., OBIESAN, K.A., and LADIPO, O.A. Health and economic consequences of septic induced abortion. *International Journal of Gynecology and Obstetrics* 37(3): 193-197. Mar. 1992.
151. KULAKOV, V.I. Abortion and infertility in Russia. *Planned Parenthood in Europe* 24(1): 10-12. Mar. 1995.
152. KWAST, B.E. Abortion: Its contribution to maternal mortality. *Midwifery* 8(1): 8-11. Mar. 1992.
153. KWAST, B.E., ROCHAT, R.W., and KIDANE-MARIAM, W. Maternal mortality in Addis Ababa, Ethiopia. *Studies in Family Planning* 17: 288-301. 1986.
154. LADIPO, O.A. Preventing and managing complications of induced abortion in Third World countries. *International Journal of Gynecology and Obstetrics* (Suppl. 3): 21-28. 1989.
155. LADIPO, O.A. Unsafe abortion in the Third World. *World Health, Apr.-May* 1990. p. 20.
156. LADJALI, M. and HAMAND, J., eds. *Unsafe abortion and sexual health in the Arab world: The Damascus Conference*. London, International Planned Parenthood Federation. Arab World Region, [1993]. 32 p.
157. LAGUARDIA, K.D., ROTHOLZ, V., and BELFORT, P. A 10-year review of maternal mortality in a municipal hospital in Rio de Janeiro: A cause for concern. *Obstetrics and Gynecology* 75(1): 27-32. Jan. 1990.
158. LAVIN, P.A. Informe preliminar sobre la caracterización de los casos y costo del tratamiento del aborto hospitalizado en Santiago de Chile. [Preliminary report on characteristics and cost of treatment of hospitalized abortion cases in Santiago, Chile.] [JSPA] In: *World Health Organization. Special Research Program on Human Reproduction*, and Alan Guttmacher Institute. *Encuentro de investigadores sobre aborto inducido en América Latina y el Caribe: Atención hospitalaria y costos del aborto*. [Research symposium on induced abortion in Latin America and the Caribbean: Hospital care and costs of abortion.] [JSPA] Santafé de Bogotá, D.C. Colombia, Universidad Externado de Colombia, Nov. 15-18, 1994. p. 76-104.
159. LAW, M., MAINE, D., and FEUERSTEIN, M.-T. Safe motherhood: Priorities and next steps. New York, United Nations Development Program, Apr. 1991. 57 p.
160. LEONARD, A. (Ipsas) [Discussion of Ipsas projects and decentralization of MVA training] Personal communication, May 8, 1996.
161. LEONARD, A.H. and LADIPO, O.A. Post-abortion family planning: Factors in individual choice of contraceptive methods. [Text and wall chart] *Ipsas Advances in Abortion Care* 4(2): 1-4. 1994.
162. LEONARD, A.H. and WINKLER, J. A quality of care framework for abortion care. *Advances in Abortion Care* 1(1): 1-4. 1991.
163. LETTENMAIER, C. and GALLAN, M.E. Counseling guide. *Population Reports, Series J*, No. 36. Baltimore, Johns Hopkins School of Public Health, Population Information Program, Dec. 1987. 28 p.
164. LETTENMAIER, C., LISKIN, L., CHURCH, C.A., and HARRIS, J.A. Mothers' lives matter: Maternal Health in the Community. *Population Reports, Series L*, No. 7. Baltimore, Johns Hopkins School of Public Health, Population Information Program, Sep. 1988. 32 p.
165. LIKWA, R.N. and WHITTAKER, M. The characteristics of women presenting for abortion and complication of illegal abortions at the University Teaching Hospital, Lusaka, Zambia: An explorative study. 1994. 15 p. (Unpublished)
166. LISKIN, L.S. Maternal morbidity in developing countries: A review and comments. *International Journal of Gynecology and Obstetrics* 37(2): 77-87. Feb. 1992.
167. LISKIN, L.S., DOUCETTE, L., and CHRISTIE, L.J. Complications of abortion in developing countries. *Population Reports, Series F*, No. 7. Baltimore, Johns Hopkins School of Public Health, Population Information Program, Jul. 1980. 52 p.
168. LOFFREDO, S. Global view: Adolescents. In: *Conveying concerns: Women write on reproductive health*. [Compilation of writings] Washington, D.C., Population Reference Bureau, Jul. 1994. 27 p.
169. LONDOÑO, M.L. Abortion counseling: Attention to the whole woman. *International Journal of Gynecology and Obstetrics* (Suppl. 3): 169-174. 1989.
170. LYNAM, P.F., DWYER, J.C., and BRADLEY, J. Inreach: Reaching potential family planning clients within health institutions. New York, AVSC International, Apr. 1994. (AVSC Working Paper No. 5) 8 p.
171. MAHLER, H. The safe motherhood initiative: A call to action. *Lancet* 1(8534): 668-670. Mar. 21, 1987.
172. MAHOMED, K., HEALY, J., and TANDON, S. A comparison of manual vacuum aspiration (MVA) and sharp curettage in the management of incomplete abortion. *International Journal of Gynecology and Obstetrics* 46(1): 27-32. Jul. 1994.
173. MAHOMED, K. and MASON, D. Adolescent pregnancy—A prospective survey of contraceptive knowledge and reproductive behaviour. *Central African Journal of Medicine* 37(10): 316-321. Oct. 1991.
174. MAINE, D. Safe motherhood programs: Options and issues. New York, Columbia University. Center for Population and Family Health, 1991. 61 p.
175. MAINE, D., KARKAZIS, K., and BOLAN, N. The bad old days are still here: Abortion mortality in developing countries. *JAMWA* 49(5): 137-142. Sep.-Oct. 1994.
176. MAINE, D., ROSENFELD, A., WALLACE, M., KIMBALL, A.M., KWAST, B., PAPIERNIK, E., and WHITE, S. Prevention of maternal deaths in developing countries: Program options and practical considerations. Nov. 1986. 56 p.
177. MALLA, K., KISHORE, S., PADHYE, S., HUGHES, R., KERRIGAN, M., MCINTOSH, N., and TIETJEN, L. Establishing postabortion care services in Nepal. *Baltimore, JHPHCO*, Jun. 1996. 32 p. (Mimeo)
178. MARGOLIS, A., LEONARD, A.H., and YORDY, L. Pain control for treatment of incomplete abortion with MVA. *Advances in Abortion Care* 3(1): 1-8. 1993.
179. MARGOLIS, A., RINDFUSS, R., COGHLAN, P., and ROCHAT, R. Contraception after abortion. *Family Planning Perspectives* 6(1): 56-60. Winter 1974.
180. MATI, J.K.G. Research findings on post-abortion counselling and family planning: Lessons learnt from the south-to-south multicentre study. Prepared for Technical Working Group Meeting on Post-Abortion Family Planning, Bellagio, Italy, Feb. 1-5, 1993. 20 p.
181. MCCARTHY, J. and MAINE, D. A framework for analyzing the determinants of maternal mortality. *Studies in Family Planning* 23(1): 23-33. Jan.-Feb. 1992.
182. MCCAULEY, A.P. and SALTER, C. Meeting the needs of young adults. *Population Reports, Series J*, Number 41. Baltimore, Johns Hopkins School of Public Health, Population Information Program, Oct. 1995. 44 p.
183. MCGINN, T., MAINE, D., MCCARTHY, J., and ROSENFELD, A. Setting priorities in international reproductive health programs: A practical framework. New York, Center for Population and Family Health. Columbia University, 1996. 52 p.
184. MCKAY, H. and HARTLEY, B. How can you combat unsafe abortion? Practical approaches in action. *IPPF Planned Parenthood Challenges* 1: 43-46. 1993.
185. MCLAURIN, K.E. A pro-active approach: Meeting women's needs for abortion care in restrictive environments. Presented at the 119th Annual Meeting of the American Public Health Association, Atlanta, Georgia, Nov. 11-14, 1991. 5 p.
186. MCLAURIN, K.E., HORD, C.E., and WOLF, C.E. Health systems' role in abortion care: The need for a pro-active approach. *Carboro, North Carolina, Ipsas International Projects Assistance Services*, 1991. (Issues in Abortion Care No. 1) 34 p.
187. MCLAURIN, K.E. and Ipsas. 10 ways to effectively address unsafe abortion. *Initiatives in Reproductive Health Policy* 1(1): 4-5. Jan. 1996.
188. MCLAURIN, K.E., SENANAYAKE, P., TOUBIA, N., and LADIPO, O.A. Post-abortion family planning. *World Health Forum* 16: 52-55. 1995.
189. MCLAURIN, K.E., SENANAYAKE, P., TOUBIA, N., and LADIPO, O.A. Post-abortion family planning: Reversing a legacy of neglect. *Lancet* 342(8879): 1099-1100. Oct. 30, 1993.
190. MIREMBE, F.M. A situational analysis of induced abortions in Uganda. Presented at the Conference on Unsafe Abortion and Post Abortion Family Planning in Africa, Mauritius, Mar. 24-28, 1994. 11 p.
191. MISAGO, C., FONSECA, W., CORREIA, L.L., and NATIONS, M. Determinants of induced abortion among poor women admitted to hospitals in Fortaleza, North Eastern Brazil. [ENG, SPA] In: *Encuentro de investigadores sobre aborto inducido en América Latina y el Caribe. Determinantes del aborto y factores asociados*, [compiled by] Universidad Externado de Colombia, World Health Organization [WHO]. Special Programme of Research, Development and Research Training on Human Reproduction, and Alan Guttmacher Institute [AGI]. Santafé de Bogotá, Colombia, Universidad Externado de Colombia, 1994. p. 59-65.
192. MORA, M. and VILLARREAL, J. Unwanted pregnancy and abortion: Bogotá, Colombia. *Reproductive Health Matters* 2: 11-20. Nov. 1993.
193. MORRIS, L. Sexual behavior and use of contraception among young adults: What have we learned from the young adult reproductive health surveys in Latin America? Presented at the 1st Inter-African Conference on Adolescent Health, Nairobi, Mar. 24-27, 1992. 31 p.
194. MORRIS, L. Sexual experience and contraceptive use among young adults in Central America. Presented at the Symposium on Population in Central America, San Jose, Costa Rica, Oct. 16-18, 1995. 25 p.
195. MPANGILE, G.S., LESHABARI, M.T., and KIHWELE, D.J. Factors associated with induced abortion in public hospitals in Dar es Salaam, Tanzania. *Reproductive Health Matters* 2: 21-30. Nov. 1993.
196. MUNDIGO, A.I. Health and social aspects of induced abortion: An overview of research needs. Overview. In: *International Union for the Scientific Study of Population (IUSSP). International Population Conference, Montreal, 1993. (Vol. 1)* [ENG, FRE] Liège, Belgium, IUSSP, 1993. p. 203-208.
197. MUNDIGO, A.I. Mortality and morbidity due to induced abortion. Cairo, International Union for the Scientific Study of Population, and Cairo University, 1991. 32 p.
198. NAAMANE-GUESSOUS, S. Traditional methods still widely used. *IPPF Planned Parenthood Challenges* 1: 14-16. 1993.
199. NASSER, J. Commentary on pain management during abortion from a Latin American physician's perspective. *International Journal of Gynecology and Obstetrics* 3(Suppl.): 141-143. 1989.
200. NEAMATALLA, G.S. and STEELE VERME, C. Postabortion women: Factors influencing their family planning options. *AVSC Working Paper No. 9*, Sep. 1995. 11 p.
201. NICHOLS, D., LADIPO, O.A., PAXMAN, J.M., and OTOLORIN, E.O. Sexual behavior, contraceptive practice, and reproductive health among Nigerian adolescents. *Studies in Family Planning* 17(2): 100-106. Mar.-Apr. 1986.
202. OAKLEY, D. Rethinking patient counseling techniques for changing contraceptive use behavior. *American Journal of Obstetrics and Gynecology* 170(5, Pt. 2): 1585-1590. May 1994.
203. ODEJIDE, T.O. Offering an alternative to illegal abortion in Nigeria. *New Era Nursing Image International* 2(2): 39-42. 1986.
204. OGUNNIYI, S.O., MAKINDE, O.O., and DARE, F.O. Abortion-related deaths in Ile-Ife, Nigeria: A 12-year review. *African Journal of Medicine and Medical Science* 19(4): 271-274. Dec. 1990.
205. OJO, O.A., PHIDO, F., HORD, C.E., BENSON, J., and WINGATE, I. An evaluation of provider acceptability and use of manual vacuum aspiration (MVA) in Nigeria. [1995]. 15 p. (Unpublished)
206. OKONOFUA, F.E., ONWUDIEGWU, U., and ODUNSI, O.A. Illegal induced abortion: A study of 74 cases in Ile-Ife, Nigeria. *Tropical Doctor* 22(2): 75-78. Apr. 1, 1992.
207. OMU, A.E., ORONSAYE, A.U., FAAL, M.K.B., and ASUQUO, E.E.J. Adolescent induced abortion in Benin City, Nigeria. *International Journal of Gynaecology and Obstetrics* 19: 495-499. 1981.
208. ONIANGO, R.K. Adolescent fertility: Who chooses abortion. *Final report*. Apr. 1993. 139 p. (Unpublished)
209. OTSEA, K. The place of abortion care in safe motherhood programs. *Journal of Obstetrics and Gynaecology of Eastern and Central Africa* 11(1): 3-7. 1993.
210. PAXMAN, J.M., RIZO, A., BROWN, L., and BENSON, J. The clandestine epidemic: The practice of unsafe abortion in Latin America. *Studies in Family Planning* 24(4): 205-226. Jul.-Aug. 1993.
211. PICK DE WEISS, S. and DAVID, H.P. Illegal abortion in Mexico: Client perceptions. *American Journal of Public Health* 80(6): 715-716. Jun. 1990.
212. PILLAI, G. Reducing deaths from pregnancy and childbirth. *Asia. Links. Health and Development Report* 9(5): 11-13. Winter 1993.
213. POPOV, A.A. Family planning and induced abortion in the USSR: Basic health and demographic characteristics. *Studies in Family Planning* 22(6): 368-377. Nov.-Dec. 1991.
214. POPULATION COUNCIL (PC). Improving the counseling and medical care of post abortion patients in Egypt: Final report. Cairo, PC, May 1995. 48 p.
215. POPULATION COUNCIL. Testing alternative approaches to providing integrated treatment of abortion complications and family planning in Kenya: Findings from phase 1. Update 3: 1-2. Dec. 1995.
216. POPULATION REFERENCE BUREAU (PRB), and CENTER FOR POPULATION OPTIONS (CPO). The world's youth 1994: A

- special focus on reproductive health. [Wall chart] [Washington, D.C.], PRB, and CPO, Mar. 1994. 1 p.
217. PRADA, E., SINGH, S., and WULF, D. Adolescentes de hoy, padres del mañana, Colombia. [Adolescents of today, parents of tomorrow, Colombia.] [SPA] PROFAMILIA 5(14): 33-43. 1989.
218. RAMOS, S. and VILADRICH, A. Abortos hospitalizados—Entrada y salida de emergencia. [Hospitalized abortions—Emergency admission and discharge.] [SPA] In: World Health Organization. Special Research Program on Human Reproduction. and Alan Guttmacher Institute. Encuentro de investigadores sobre aborto inducido en América Latina y el Caribe: Atención hospitalaria y costos del aborto. [Research symposium on induced abortion in Latin America and the Caribbean: Hospital care and costs of abortion.] [SPA] Santafé de Bogotá, D.C. Colombia, Universidad Externado de Colombia, Nov. 15-18, 1994. p. 1-24.
219. RANCE, S. Post-abortion services in Bolivia. Women's Global Network for Reproductive Rights Newsletter 45: 19-20. Jan.-Mar. 1994.
220. RAŠEVI, M. Problem of abortion in Yugoslavia. Presented at the 22nd General Population Conference, Montreal, Canada, Aug. 24-Sep. 1, 1993. 17 p.
221. REMENICK, L.I. Epidemiology and determinants of induced abortion in the U.S.S.R. Social Science and Medicine 33(7): 841-848. 1991.
222. REMEZ, L.C. Confronting the reality of abortion in Latin America. International Family Planning Perspectives 21(1): 32-36. Mar. 1995.
223. RICH, V. Poland: Abortion. Lancet 341(8852): 1083-1084. Apr. 24, 1993.
224. RINGHEIM, K. Determinants of induced abortion: The role of perceived and experienced contraceptive side effects and lack of counseling. [1996]. 40 p. [Unpublished]
225. ROBEY, B., ROSS, J., and BHUSHAN, I. Meeting unmet need: New strategies. Population Reports, Series J, No. 43. Baltimore, Johns Hopkins School of Public Health, Population Information Program, Oct. 1996. 36 p.
226. ROBEY, B., RUTSTEIN, S.O., MORRIS, L., and BLACKBURN, R. The reproductive revolution: New survey findings. Population Reports, Series M, No. 11. Baltimore, Johns Hopkins School of Public Health, Population Information Program, Dec. 1992. 44 p.
227. ROGO, K.O. Induced abortion in sub-Saharan Africa. East African Medical Journal 70(6): 386-395. Jun. 1993.
228. ROSENFELD, A. Contraception after pregnancy termination. In: Landy, U. and Ratman, S.S., eds. Prevention and treatment of contraceptive failure: In honor of Christopher Tietze. New York, Plenum Press, 1986. p. 197-200.
229. ROSENFELD, A. Maternal mortality in developing countries: An ongoing but neglected "epidemic." JAMA 262(3): 376-379. Jul. 21, 1989.
230. ROSENFELD, A. and MAINE, D. Maternal mortality—A neglected tragedy. Where is the M in MCH? Lancet 2(8446): 83-85. Jul. 13, 1985.
231. ROSS, J.A. and FRANKENBERG, E. Findings from two decades of family planning research. New York, Population Council, 1993. p. 63-74.
232. ROYSTON, E. Estimating the number of abortion deaths. In: Population Council (PC). Methodological issues in abortion research. New York, PC, 1989. (Critical Issues in Reproductive Health and Population) p. 23-28.
233. ROYSTON, E. and ARMSTRONG, S., eds. Preventing maternal deaths. Geneva, World Health Organization, 1989. 233 p.
234. SABA, W.P. (Population Communication Services) [Bolivia reproductive health campaign] Personal communication, Nov. 13, 1996.
235. SAI, F.T. and MEASHAM, D.M. Safe motherhood initiative: Getting our priorities straight. Lancet 339(8791): 478-480. Feb. 22, 1992.
236. SENANAYAKE, P. Postpartum family planning in the 1990s. Research Triangle Park, North Carolina, Family Health International 1991. (Postpartum Conference Article 1) 3 p.
237. SHAPIRO, D. and TAMBASHA, O. Women's employment, education, contraception and abortion in Kinshasa. University Park, Pennsylvania, Pennsylvania State University. Population Research Institute, Jan. 1994. (Working Paper No. 1994-05) 48 p.
238. SHERRIS, J., ed. Manual vacuum aspiration for treatment of incomplete abortion. Outlook 12(1): 1-5. Apr. 1994.
239. SINGH, S. and SEDGH, G. The relationship of abortion to trends in contraception and fertility in Brazil, Colombia and Mexico. International Family Planning Perspectives 23(1): 4-14. Mar. 1997.
240. SINGH, S. and WULF, D. Estimated levels of induced abortion in six Latin American countries. International Family Planning Perspectives 20(1): 4-13. Mar. 1994.
241. SINGH, S. and WULF, D. The likelihood of induced abortion among women's hospitalized for abortion complications in four Latin American countries. International Family Planning Perspectives 19(4): 134-141. Dec. 1993.
242. SOLO, J. (Population Council) [Postabortion care research] Personal communication, Sep. 16, 1996.
243. SOLO, J. and BILLINGS, D.L. Creating linkages between incomplete abortion treatment and family planning in Kenya: Baseline findings of an operations research study. New York, Population Council, 1997.
244. STARRITT, T. Stop and listen. British Journal of Theatre Nursing 2(1): 11-14. Apr. 1992.
245. STARRS, A. Preventing the tragedy of maternal deaths. A report on the International Safe Motherhood Conference, Nairobi, Kenya, Feb. 1987. Washington, DC, World Bank, [1987]. 56 p.
246. STEELE VERME, C., HARPER, P.B., MISRA, G., and NEAMATALLA, G.S. Family planning counseling: An evolving process. International Family Planning Perspectives 19(2): 67-71. Jun. 1993.
247. STEELE VERME, C. and NEAMATALLA, G.S. Postabortion contraception: Few family planning services available. AVSC News 31(4): 4. Dec. 1993.
248. STEIN, K. (Population Council) [Operations research projects on post abortion care, counseling, and family planning] Personal communication, May 13, 1996.
249. STUBBLEFIELD, P.G. Control of pain for women undergoing abortion. International Journal of Gynecology and Obstetrics 3(Suppl.): 131-140. 1989.
250. STUBBLEFIELD, P.G. and GRIMES, D.A. Septic abortion. New England Journal of Medicine 331(5): 310-314. Aug. 4, 1994.
251. SUNDSTROM, K. Abortion—A reproductive health issue: Background paper for a World Bank Best Practices paper on women's health. Stockholm, and Washington, D.C., Swedish International Development Authority, and World Bank, Jul. 1993. 101 p.
252. SWEET, R.L. and GIBBS, R.S. Postabortion infection and septic shock. In: Infectious diseases of the female genital tract. 2nd ed. Baltimore, Williams & Wilkins, 1990. p. 229-240.
253. THADDEUS, S. and MAINE, D. Too far to walk: Maternal mortality in context (Findings from a multidisciplinary literature review). [New York], Columbia University. Center for Population and Family Health, May 1990. 177 p.
254. THAPA, S., THAPA, P.J., and SHRESTHA, N. Abortion in Nepal: Emerging insights. Advances in Population 2: 253-270. 1994.
255. THAPA, P.J., THAPA, S., and SHRESTHA, N. A hospital-based study of abortion in Nepal. Studies in Family Planning 23(5): 311-318. Sep.-Oct. 1992.
256. TIETZE, C. and HENSHAW, S.K. Induced abortion: A world review 1986. (6th ed.) New York, Alan Guttmacher Institute, 1986. 151 p.
257. TIETZE, C. and LEWIT, S. Joint Program for the Study of Abortion (IPSA): Early medical complications of legal abortion. Studies in Family Planning 3(6): 97-119. 1972.
258. TINKER, A., KOBLINSKY, M.A., DALY, P., ROONEY, C., LEIGHTON, C., GRIFFITHS, M., HUQUE, A.A.Z., and KWAST, B. Making motherhood safe. Washington, D.C., World Bank, 1993. (World Bank Discussion Papers No. 202) 158 p.
259. TOUBIA, N. Decision trees to guide post-abortion family planning counseling—Alternative approaches determined by women's abortion history. International Journal of Gynecology and Obstetrics 45(Suppl): 525-533. 1994.
260. TOUBIA, N. Female circumcision as a public health issue. New England Journal of Medicine 331(11): 712-716. Sep. 15, 1994.
261. TURKEY. MINISTRY OF HEALTH (MOH) and HACETTEPE UNIVERSITY (HU). INSTITUTE OF POPULATION STUDIES, and DEMOGRAPHIC AND HEALTH SURVEYS (DHS). MACRO INTERNATIONAL. Turkey. Demographic and Health Survey, 1993. Ankara, Turkey, and Calverton, Maryland, MOH, and HU, and DHS, Oct. 1994. 265 p.
262. TURKEY. MINISTRY OF HEALTH, and POPULATION COUNCIL (PC), and AVSC INTERNATIONAL/TURKEY. Turkey situation analysis study of selected reproductive health care services: Condensed English report. New York, PC, Jun. 1995. 39 p.
263. UNITED NATIONS. Fourth World Conference on Women, Beijing, China, 4-15 Sep. 1995. Sep. 15, 1995. [Unpublished] 199 p.
264. UNITED NATIONS (UN). Report of the International Conference on Population and Development. (Cairo, 5-13 Sep. 1994). (Preliminary version) [New York], UN, 1994. 155 p. (Mimeo)
265. UNITED STATES. AGENCY FOR INTERNATIONAL DEVELOPMENT (AID). OFFICE OF POPULATION. The role of family planning in preventing abortion. Washington, D.C., AID, 1996. p. 7.
266. UNUIGE, J.A., ORONSAY, A.U., and ORHUE, A.A.E. Abortion-related morbidity and mortality in Benin City, Nigeria: 1973-1985. International Journal of Gynecology and Obstetrics 26(3): 435-439. Jun. 1988.
267. VALENTE, T.W., SABA, W.P., PAYNE MERRITT, A., FRYER, M.L., FORBES, T., PÉREZ, A., and BELTRÁN, L.R. Reproductive health is in your hands: Impact of the Bolivia National Reproductive Health Program campaign. [SPA, ENG] Baltimore, Johns Hopkins Center for Communication Programs, Feb. 1996. (IEC Field Report No. 4) 95 p.
268. VERKUYL, D.A.A. and CROWTHER, C.A. Suction v. conventional curettage in incomplete abortion—A randomized controlled trial. South African Medical Journal 83(1): 13-15. Jan. 1993.
269. VITERI, F.E. The consequences of iron deficiency and anaemia in pregnancy on maternal health, the foetus and the infant. SCN News 11: 14-18. 1994.
270. WEISNER, M. Fecundidad y aborto provocado en mujeres chilenas. [Fertility and induced abortion among Chilean women.] [SPA] Enfoques en Atención Primaria 3: 23-32. 1988.
271. WESTOFF, C.F. Reproductive preferences: A comparative view. Columbia, Maryland, Institute for Resource Development/Macro Systems, Feb. 1991. (Demographic and Health Surveys Comparative Studies No. 3) 33 p.
272. WESTOFF, C.F. and BANKOLE, A. Unmet need: 1990-1994. Calverton, Maryland, Macro International, Jun. 1995. (Demographic and Health Surveys Comparative Studies No. 16) 55 p.
273. WESTOFF, C.F. and OCHOA, L.H. Unmet need and the demand for family planning in Kenya. Columbia, Maryland, Macro International, Aug. 1993. (DHS Working Papers No. 4) 32 p.
274. WINIKOFF, B., CARIGNAN, C., BERNARDIK, E., and SEMERARO, P. Medical services to save mothers' lives: Feasible approaches to reducing maternal mortality. New York, Population Council, Mar. 1991. (Working Papers No. 4) 58 p.
275. WINIKOFF, B., CARIGNAN, C., BERNARDIK, E., and SEMERARO, P. Medical services to save mothers' lives: Feasible approaches to reducing maternal mortality. Dec. 1, 1986. 49 p. [Unpublished]
276. WINKLER, J. and GRINGLE, R., eds. Postabortion family planning: A curriculum guide for improving counseling and services. Carboro, North Carolina, Ipas, 1996.
277. WINKLER, J., OLIVERAS, E., and MCINTOSH, N., eds. Postabortion care: A reference manual for improving quality of care. Baltimore, Postabortion Care Consortium, 1995.
278. WOLF, M. and BENSON, J. Global perspectives on post-abortion family planning. International Journal of Gynecology and Obstetrics 45(Suppl): S28-S30. 1994.
279. WOLF, M. and BENSON, J. Meeting women's needs for post-abortion family planning: Report of a Bellagio Technical Working Group, Bellagio, Italy, Feb. 1-5, 1993. International Journal of Gynecology and Obstetrics 45(Suppl): S3-S23. 1994.
280. WORLD BANK (WB). Improving women's health in India. Washington, D.C., WB, 1996.
281. WORLD HEALTH ORGANIZATION (WHO). Care of mother and baby at the health centre: A practical guide. Geneva, WHO, 1994. 54 p.
282. WORLD HEALTH ORGANIZATION (WHO). Complications of abortion: Technical and managerial guidelines for prevention and treatment. Geneva, WHO, 1995. 147 p.
283. WORLD HEALTH ORGANIZATION (WHO). Essential elements of obstetric care at first referral level. Geneva, WHO, 1991. 79 p.
284. WORLD HEALTH ORGANIZATION (WHO). The health of youth, facts for action: Youth and sexually transmitted diseases. Geneva, WHO, 1989. 6 p.
285. WORLD HEALTH ORGANIZATION (WHO). Maternal mortality ratios and rates: A tabulation of available information. (3rd ed) Geneva, WHO, 1991. 100 p.
286. WORLD HEALTH ORGANIZATION (WHO). Mother-baby package: Implementing safe motherhood in countries. Geneva, WHO, 1994. 115 p.
287. WORLD HEALTH ORGANIZATION (WHO). Postabortion family planning: Guidelines for programme managers. Geneva, WHO, [Forthcoming, 1997]
288. WORLD HEALTH ORGANIZATION (WHO). The prevention and management of puerperal infections. Report of a technical working group, Geneva, 20-22 May 1992. Geneva, WHO, 1995. 33 p.
289. WORLD HEALTH ORGANIZATION (WHO). The prevention and management of unsafe abortion. Report of a Technical Working Group: Geneva, 12-15 Apr. 1992. Geneva, WHO, 1993. 23 p.
290. WORLD HEALTH ORGANIZATION (WHO). GLOBAL PROGRAMME ON AIDS. Global blood safety initiative: Minimum targets for blood transfusion services. Geneva, WHO, and League of Red Cross and Red Crescent Societies, 1989. 4 p.
291. WORLD HEALTH ORGANIZATION (WHO), and INTERNATIONAL WOMEN'S HEALTH COALITION. Creating common ground: Report of a meeting between women's health advocates and scientists. Geneva, WHO, 1991. 45 p.
292. WORLD HEALTH ORGANIZATION (WHO). MATERNAL HEALTH AND SAFE MOTHERHOOD PROGRAMME. Abortion: A tabulation of available data on the frequency and mortality of unsafe abortion. 2nd ed. Geneva, WHO, 1994. 117 p.
293. WORLD HEALTH ORGANIZATION (WHO). MATERNAL HEALTH AND SAFE MOTHERHOOD PROGRAMME. Clinical management of abortion complications: A practical guide. Geneva, WHO, 1994. 77 p.
294. WORLD HEALTH ORGANIZATION (WHO). MATERNAL HEALTH AND SAFE MOTHERHOOD PROGRAMME. The prevention and management of unsafe abortion. Geneva, WHO, 1993. 23 p.
295. WORLD HEALTH ORGANIZATION (WHO), and UNITED NATIONS CHILDREN'S FUND. Revised 1990 estimates of maternal mortality: A new approach by WHO and UNICEF. [Geneva], WHO, Apr. 1996. 20 p.
296. YORDY, L., LEONARD, A.H., WINKLER, J. Manual vacuum aspiration guide for clinicians. [ENG, SPA, POR] Carboro, North Carolina, Ipas, 1993. 88 p.
297. YOSEPH, S. and KIFLE, G. A six-year review of maternal mortality in a teaching hospital in Addis Ababa. Ethiopian Medical Journal 26(3): 115-120. Jul. 1988.
298. ZABIN, L.S., KANTNER, J.F., and ZELNIK, M. The risk of adolescent pregnancy in the first months of intercourse. Family Planning Perspectives 11(4): 215-222. Jul.-Aug. 1979.
299. ZAMUDIO, L. and RUBIANO, N. Primer encuentro de investigadores sobre aborto inducido en América Latina y el Caribe: Conclusiones y recomendaciones. [First research symposium on induced abortion in Latin America and the Caribbean: Conclusions and recommendations.] [SPA] Santafé de Bogotá, Colombia, Universidad Externado de Colombia. Centro de Investigaciones sobre Dinámica Social, Mar. 1995. 21 p.

ADDENDA

300. BAIRD, T.L., GRINGLE, R.F., and GREENSLADE, F.C. MVA in the treatment of incomplete abortion: Clinical and programmatic experience. Carboro, North Carolina, Ipas, 1995.
301. BALOGH, A. and LAMPE, L. Hungary. In: Rolston, B. and Eggert, A., eds. Abortion in the new Europe: A comparative handbook. Westport, Connecticut, Greenwood Press, 1994. p. 139-156.
302. SINGH, S., CABIGON, J.V., HOSSAIN, A., KAMAL, H., and PEREZ, A.E. Estimating the level of abortion in the Philippines and Bangladesh. International Family Planning Perspectives 23(3): 100-107. 144. Sept. 1997.
303. SINGH, S. and HENSHAW, S. The incidence of abortion: A worldwide overview. New York, Alan Guttmacher Institute, 1996. (Mimeo)
304. SULLIVAN, J.M., KARSYBEKOVA, N.M., and WEINSTEIN, K.I. Induced abortion. In: Kazakhstan. National Institute of Nutrition (NIN), and Macro International (MI). Kazakhstan Demographic and Health Survey, 1995. Calverton, Maryland, NIN and MI, 1996. p. 67-76.
305. UNITED NATIONS (UN). World contraceptive use. New York, UN Data Diskettes, 1992.
306. WINKLER, J. and VERBIEST, S. Providing postabortion care services, module 5 in PRIME: Reproductive health training for primary providers: A sourcebook for curriculum development. Chapel Hill, NC, INTRAH, 1997.

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